The New York
Academy of Medicine



By Exchange



Digitized by the Internet Archive
in 2016

https://archive.org/details/coloradomedicine29unse_0

Colorado Medicine

Official Journal
of
The Colorado State Medical Society
The Wyoming State Medical Society
and
The Colorado Hospital Association

Volume XXIX
January to December, 1932

EDITORIAL STAFF
Douglas W. Macomber, M.D., Scientific Editor, Colorado Section
Earl Whedon, M.D., Scientific Editor, Wyoming Section
Frank J. Walter, Editor, Hospital Section
Harvey T. Sethman, Managing Editor

PUBLICATION COMMITTEE
William H. Crisp, M.D., 1930-1932
C. F. Kemper, M.D., 1931-1933
C. S. Bluemel, M.D., 1932-1934

NEW YORK ACADEMY
OF MEDICINE
JAN 21 1933
LIBRARY
184813

INDEX TO VOLUME XXIX

Abbott, Walter D.; Head Injuries, 163.
Acroydynia (Geissinger), 400.
Addison's Disease and the Hormone of the Suprarenal Cortex (Kemper and Dickman), 105.
Agranulocytosis: With Report of a Case in a Child (Fricdman and Smith), 26.
Allergy, Considerations on, in Clinical Tuberculosis (Sewall), 362.
Amebiasis in Colorado—Its Symptomatology (Chisholm), 124.
Amesse, J. W.; Control of Communicable Disease, 57.
Amesse, J. W.; Precocious Menstruation; Three Case Reports Including One with Carcinoma of the Uterus at Two Years, 317.
Amesse, J. W.; The Outlook for Medicine, 242.
Anemia, Alimentary (Blickensderfer), 113.
Anuria, The Treatment of, by Kidney Decapsulation: Case Report (Forbes and Packard), 74.
Appendiceal Abscess, Unusual: Case Report (Perkins and Hepp), 331.
Arthritis Deformans (Meader), 253.
Aschheim-Zondek Pregnancy Test, Modifications of the (Jones), 49.
Asthma, Cardiac (Viko), 149.
Barber, W. W. and Buchanan, L. D.; Congenital Absence of Both Clavicles and Malformation of the Cranium (Cleido-Cranial Dystostosis), 196.
Barber, Wilford W.; Primary Streptococcic Peritonitis in Children, 324.
Baskin, M. J.; Mediastinal Emphysema, Report of a Case Due to Fractured Rib: Case Report, 371.
Beebe, N. L.; Osteochondritis, 118.
Biography as Related to Medical Terminology; Laennec, Rene Theophile, 41, 83, 133, 175, 215, 262; Mitchell, Silas Weir, 288, 334, 378, 414, 447, 467.
Black, William C. and Sears, Thad P.; Hodgkin's Disease Without Lymphadenopathy: Case Report, 208.
Bladder Neck, Fibrosis of the, with Regard to its Pathology and Rational Treatment (Spitzer), 18.
Blickensderfer, George M.; Alimentary Anemia, 113.

Book Reviews:

Adams, Edward, Surgery with Special Reference to Podiatry, 445.
American Medical Association, Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1931, 377.
American Medical Association, New and Nonofficial Remedies, 1932, 413.
Andrews, George Clinton, Diseases of the Skin. A Text-Book for Practitioners and Students, 333.
Beardwood, Joseph T.; Simplified Diabetic Management, 287.
Beckman, Harry, Treatment in General Practice, 376.
Boerner, Fred, and Kolmer, John A., American Society of Clinical Pathologists, Approved Laboratory Technic, 82.
Bradley, Alice V., Tables of Food Values, 40.
Brown, George E., and Rowntree, Leonard G.; The Volume of the Blood and Plasma, in Health and Disease, 333.
Camac, C. N. B., Imhotep to Harvey. Backgrounds of Medical History, 446.
Campbell, Willis C., A Text-Book on Orthopedic Surgery, 214.
Cooperative Committee on Fractures, Illustrated Primer on Fractures, Edition 1 and 11, 213.
Cushing, Harvey, Intracranial Tumors. Notes Upon a Series of Two Thousand Verified Cases with Surgical Mortality Percentages Pertaining Thereto, 444.
Felderman, Leon, The Human Voice—Its Care and Development, 377.
Geneva Health Organization, Quarterly Bulletin of, League of Nations, 442.
Gifford, Sanford R., A Hand-Book of Ocular Therapeutics, 466.
Granger, Amedee, A Radiological Study of the Para-nasal Sinuses and Mastoids, 174.
Graves, William P., Female Sex Hormonology, 287.
Hallibruton, W D., and McDowell, R. J. S., Handbook of Physiology, 132.
Harvey, B. C. H., Simple Lessons in Human Anatomy, 80.
Hazen, Henry H., Cutaneous X-Ray and Radium Therapy, 261.
Hertzler, Arthur E., Surgical Pathology of the Female Generative Organs, 413.
Hertzler, Arthur E., Surgical Pathology of the Genito-Urinary Organs, 80.
Hertzler, Arthur E., Surgical Pathology of the Skin, Fascia, Mucles, Tendons, Blood and Lymph Vessels, 377.
Herzog, Alfred W., Medical Jurisprudence, 81.
Hirsch, Edwin W., A Non-Surgical Consideration of Prostatic Enlargement, 466.
Hyman, Albert S. and Aaron E. Parsonnet, The Failing Heart of Middle Life. The Myocardosis Syndrome, Coronary Thrombosis, and Angina Pectoris. With a Section upon The Medico-Legal Aspects of Sudden Death from Heart Disease, 445.
Kessler, Henry H., Accidental Injuries. The Medico-Legal Aspects of Workmen's Compensation and Public Liability, 445.
Kolmer, John A., and Boerner, Fred, American Society of Clinical Pathologists, Approved Laboratory Technic, 82.
McDowell, R. J. S., and Halliburton, W. D., Handbook of Physiology, 132.
McDowall, Robert John Stewart, The Science of Signs and Symptoms in Relation to Modern Diagnosis and Treatment. A Textbook for General Practitioners of Medicine, 446.
Miner, Elmer A., Living the Liver Diet; with introduction by William P. Murphy, 214.
Moodie, Roy L., Roentgenologic Studies of Egyptian and Peruvian Mummies, 81.
Muirhead, Arnold, "Grace Revere Osler. A Brief Memoir", 80.
Norris, George William, Diseases of the Chest and the Principles of Physical Diagnosis, 446.
Parsonnet, Aaron E., and Albert S. Hyman, The Failing Heart of Middle Age. The Myocardosis Syndrome, Coronary Thrombosis, and Angina Pectoris. With a Section upon The Medico-Legal Aspects of Sudden Death from Heart Disease, 445.
Peterson, Houston, Huxley, Prophet of Science, 444.
Piette, Eugene C., Pathology for Nurses, 261.
Pillsbury, Lt. Col. H. C., Editor, U. S. Army X-Ray Manual, 413.
Pruitt, Marion C., Modern Proctology, 80.
Presbyterian Hospital Association, Proceedings of the Clinical Staff Society of the Presbyterian Hospital of Colorado, 81.
Rockefeller Institute for Medical Research, Studies from the Rockefeller Institute for Medical Research, 443.
Rowntree, Leonard G., and Brown, George E., The Volume of the Blood and Plasma, in Health and Disease, 333.
Singer, Charles, The Story of Living Things, 214.
Stryker, Lloyd Paul, Courts and Doctors, 174.
Surgical Clinics of North America, the, Lahey Clinic Number, April, 1931, 132.
Thorek, Max, Surgical Errors and Safeguards, 444.
Vaughan, Warren T., Allergy, 261.
Wells, H. Gideon, The Chemistry of Tuberculosis, 442.
White House Conference on Child Health and Protection, Committee on Public Health Organization of Section Two, Public Health Service and Administration, E. L. Bishop, Chairman, Public Health Organization, 443.
White House Conference on Child Health and Protection, Reports of the Subcommittees. Hospitals and Child Health; Hospitals and Dispensaries; Convalescent Care; Medical Social Service, 446.
White House Conference on Child Health and Protection, Subcommittee on Obstetric Teaching and Education, Fred Lyman Adair, Chairman, Obstetric Education, 333.
White House Conference on Child Health and Protection, Subcommittee on Orthopedics and Body Mechanics, Robert B. Osgood, Chairman, Body Mechanics: Education and Practice, 261.
White House Conference on Child Health and Protection, Subcommittee on Psychology and Psychiatry, Bronson Crothers, Chairman, Psychology and Psychiatry in Pediatrics: The Problem, 443.
White House Conference on Child Health and Protection, Subcommittee on Statistics, George Truman Palmer, Chairman, Health Protection for the Preschool Child, 287.
White, Paul Dudley, Heart Disease, 82.

Wohl, Michael G., Bedside Interpretation of Laboratory Findings, 287.
Briskman, A. Lee; The Ideals of Medicine, 72.
Buchanan, L. D. and Barber, W. W.; Congenital Absence of Both Clavicles and Malformation of the Cranium (Cleido-Cranial Dystostosis), 196.
Burnett, Clough T.; Rheumatic Heart Disease, 248.
Cardiac Asthma (Viko), 149.
Carey, J. D.; "Cowl Fractures", 280.
Children's Charter, the (Kamp), 345.
Chisholm, A. J.; Amebiasis in Colorado—Its Symptomatology, 124.
Cholecystostomy and Cholecystectomy, The Respective Indications of (Heineck), 166.
Clagett, O. F.; A Pituitary Syndrome Apparently Related to Pregnancy: Case Report, 169.
Cleido-Cranial Dystostosis. Congenital Absence of Both Clavicles and Malformation of the Cranium (Barber and Buchanan), 196.
Communicable Disease, Control of (Amesse), 97.
Congenital Absence of Both Clavicles and Malformation of the Cranium (Cleido-Cranial Dystostosis, (Barber and Buchanan), 196.
Connor, Paul J. and Maier, F. Julian; Undulant Fever in Colorado, 430.
Coronary Artery Disease, The Symptoms and Diagnosis of (Smith), 189.
Corper, H. J.; The Life of Robert Koch, 353.
"Cowl Fractures" (Carey), 280.
Crisp, William H.; Should Children Wear Glasses?, 193.
Crouch, John B.; The Causes of Changed Mortality Rates, 460.
Day, H. S. and Walker, C. R.; Tularemia in Mesa County: Case Report, 373.
Dickman, P. A. and Kemper, C. F.; Addison's Disease and the Hormone of the Suprarenal Cortex, 105.
Dorsey, Charles W.; Gonorrhea in Women, 436.
Duodenal Tube Feeding. Simultaneous Perforation of Duodenum and Incarceration of Inguinal Hernia: Case Report (Ruddy), 169.

Editorials—Colorado:

Antivivisection Questionnaire, 234.
Build No More Veterans' Hospitals, 146.
Burden of Highway Accidents, the, 146.
Century of Medical Progress, a, 186.
Certification of Specialists, 427.
Colorado as Host, 270.
Colorado at the A. M. A., 235.
Committee on the Costs of Medical Care, 269.
Consistent Medical Advice, 102.
Cooperation With the University Faculties, 350.
Cooperation With University Faculties—A Reply, 392.
Correspondence, 148.
Cost of Government, 272.
Cost of Irregular Healers, 351.
Definition of "Panel System", 425.
Dentists to Advertise Ethically, 3.
Discussions to be Abstracted, 427.
Don't Miss the Meeting in Estes Park, 350.
Economics Discussed by Secretaries and Editors, 459.
Encourage Use of Pasteurized Milk, 459.
Experiments of a Socialistic Nature, 350.
Facilities for Cancer Control, 458.
Football Fatalities, 147.
Former Editor Passes On, a, 270.
Formula For Longevity, 147.
Friend of the Profession, a, 351.
Genesis of Social Insurance, the, 54.
Gerald B. Webb, 390.
Getting Ready for Estes Park, 272.
Great Need in Medical Education, a, 233.
Immediate Needs in Social Hygiene Work, 188.
In Honor of Henry Sewall, 1
Insurance Plan of Benefits for Veterans, an, 51.
Joseph Colt Bloodgood, 52.
Justice in Veterans' Relief, 309.
Liver Therapy, 457.
Malign Propaganda, 234.
Medical Man's Error, the, 54.
Medicine in Cuba, 311.
Medicine of the Renaissance, 52.
Misuse of the Term "Drug," 459.
Mutual Protection, 185.
National Tuberculosis Association in Colorado, 186.
New Dress for Colorado Medicine, a, 233.
Observations on State Medicine, 426.
Opportunity to Earn $15,000, an, 148.
Our Relations with the Wyoming Society, 311.
Our Sixty-second Annual Meeting, 390.
Outlook for Medical Practice in Germany, the, 427.
Oxygen Therapy, 352.
Paradoxical Observation, a, 56.
Patients' Control of Medical Fees, 102.
Poor Medical Scholarship, 310.
Practice of Medicine by Lay Corporations, 4.
Present Status of Eugenic Sterilization, 312.
Professional Ethics, 101.
Proprietaries, 185.
Radio Commends the Physician, 351.
Radio Publicity and Health Education, 103.
Record in Health Education, a, 235.
Redistribute Blame for Cost of Sickness, 235.
Report of Committee on Costs of Medical Care, 312.
Scarlet Fever Immunization, 187.
Scientific Programs and the Business of Medical Practice, 53.
Secretary of the Interior Criticised in St. Louis, 310.
Services of Our Past-Presidents, 427.
Sickness Insurance in the United States, 425.
Social Insurance is Contrary to the Fundamental Principles of Democratic Government, 55.
Social Insurance Versus Democracy, 104.
State Society Postgraduate Instruction, 458.
Suggest a System for Health Insurance, 272.
Super-Power Microscope, a, 53.
Surrendering to Charity, 426.
Take an Interest in Hygeia, 101.
Take the Mystery Out of Medicine, 269.
Thoughts on Sickness Insurance, 392.
Tulane Establishes Department of Preventive Medicine, 103
Use Your Available Credit Information, 147.
Vigilance Toward Legislation, 309.
Visible and Invisible Bacteria, 103.
Western Branch American Public Health Association, 271.
What is State Medicine?, 145.
What Price Patriotism, 3.
Your Membership Privileges, 349.

Editorials—Wyoming:

Away With the Eye Cup, 140.
Congratulations, 518.
Consolidate the Boards, 298.
Correction, 223, 453.
Frederick Lewis Beck, Our President, 518.
Gonorrhea Ophthalmia in the Adult, 419.
High Frequency Treatment of Sinus Infection, 384.
New Symptom of Diaphragmatic Hernia of the Stomach, a, 420.
New Year of 1932, the, 48.
Next Legislature, the, 419.
Northwest Regional Conference, the, 140.
On to Estes Park and the Colorado Meeting, 385.
On to Rock Springs, July 18 and 19, 298.
Our Ladies, 452.
Our President's Letter, 299.
Our Very Modest President, 452.
Presbyopia, 452.
President's Message, 518.
Program, Thirtieth Annual Meeting, Wyoming State Medical Society, 300.
Public Policy and Legislative Committee Meeting, 223.
Public Policy and Legislative Committee, the, 96.
Republican and Democratic State Conventions, 267.
Rock Springs in Retrospect, 344.
Rock Springs Meeting, the, 182.
Ticks Are Here, the, 182.
William Peel vs. Fred W. Phifer, et al, 97.
Wyoming State Hospital for the Insane, the, 48.
Wyoming White House Conference, the, 267.
Your Dues Are Due, 48.

Einhorn, Nathan H.; Summary of Health of Children in Midwest Grade School, 141.
Emphysema, Mediastinal; Report of a Case Due to Fractured Rib: Case Report (Baskin), 371.
Erb, Allan H.; Medical Economics, 69.
Evans, John R.; Trichomonas Vaginitis, 59.
Experimental Production of Blood Changes Simulating Pernicious Anemia (Sims), 440.
Fibrosis of the Bladder Neck with Regard to its Pathology and Rational Treatment (Spitzer), 18.
Foard, Fred P.; The Development of Local Health Service in the County as a Unit, 64.
Forbes, Roy P. and Packard, G. B.; The Treatment of Anuria by Kidney Decapsulation: Case Report, 74.
Fractures, "Cowl" (Carey), 280.
Frank, Lorenz W.; Rheumatic Fever, 245.
Friedman, Emanuel and Smith, Tinsley, Jr.; Agranulocytosis: With Report of a Case in a Child, 26.
Gauss, Harry; Nervous Indigestion, 202.
Geis, Neil Charles; Infant and Child Care and Feeding, 454.
Geissinger, J. D.; Acroydynia, 400.

Geriatrics (Giesc), 159.
Giese, C. O.; Geriatrics, 159.
Ginsburg, M. M.; Septicemia in Children, 406.
Glasses, Should Children Wear? (Crisp), 193.
Goiter Problem, A Review of the (Van Meter), 5.
Gonorrhea in Women (Dorsey), 436.
Goodnough, J. H.; Preventive Medicine and Immunization, 523.
Habit Forming Drugs (Jackson), 398.
Harris, C. E.; Present Trends in Tuberculosis, 155.
Head Injuries (Abbott), 163.
Health Service in the County as a Unit, The Development of Local (Foard), 64.
Heart Disease, Rheumatic (Burnett), 248.
Heineck, Aimé Paul; The Respective Indications of Cholecystostomy and Cholecystectomy, 166.
Hepp. L. Clark and Perkins, Earl J.; Unusual Appendiceal Abscess: Case Report, 331.
Hodgkin's Disease Without Lymphadenopathy: Case Report (Sears and Black), 208.
Ideals of Medicine, the (Briskman), 72.
Indigestion, Nervous (Gauss), 202.
Infant and Child Care and Feeding (Geis), 454.
Infant and Maternal Mortality (Tinkin), 524.
Infant Feeding, Evaporated Milk in (Stein), 281.
Intestine, Sarcoma of the Small (Mumey), 12.
Jackson, Edward; Habit Forming Drugs, 398.
Jaffa, B. B.; Meningitis in Denver—A Statistical Summary of a Five Year Period, 434.
Joint Diseases, Surgical Forms of Non-Tuberculous (Sevier), 251.
Jones, Rodney H.; Modifications of the Aschheim-Zondek Pregnancy Test, 49.
Kamp, J. C.; The Children's Charter, 345.
Kamp, J. C.; Vasomotor and Trophic Disturbances, 302.
Kampmeier, R. H.; Post-Pneumonic Non-Resolution and Syphilis, 273.
Kemper, C. F. and Dickman, P. A.; Addison's Disease and the Hormone of the Suprarenal Cortex, 105.
Koch, Robert; The Life of (Corper), 353.
Lennox, William G.; Medicine in China, 313.
Library Notes, 39, 79, 132, 173, 213, 286, 376, 442, 466.
Low, Harold T.; Vesical Neck Obstruction: Its Relief by Transurethral Resection, 367.
Maier, F. Julian and Connor, Paul J.; Undulant Fever in Colorado, 430.
Major, Ralph H.; Chronic Nephritis, 236.
McKeen, H. R.; Bleeding Ulcer of Meckel's Diverticulum: Case Report, 258.
Meader, Charles N.; Arthritis Deformans, 253.
Meckel's Diverticulum, Bleeding Ulcer of: Case Report (McKeen), 258.
Medical Economics (Erb), 69.
Medical Practice Act, A Study of the, in Wyoming (Woodward), 225.
Medicine in China (Lennox), 313.
Medicine, The Outlook for (Amesse), 242.
Membership List, Colorado, 498.
Membership List, Wyoming, 528.
Meningitis in Denver—A Statistical Summary of a Five Year Period (Jaffa), 434.
Menstruation, Precocious; Three Case Reports Including One with Carcinoma of the Uterus at Two Years (Amesse), 317.
Minnig, Arnold; Indications for the Treatment of Obesity, 277.
Mortality Rates, The Causes of Changed (Crouch), 460.
Mumey, Nolie; Sarcoma of the Small Intestine, 12.
Nephritis, Chronic (Major), 236.
Nervous Indigestion (Gauss), 202.
Obesity, Indications for the Treatment of (Minnig), 277.

Obituaries—Colorado:

Becker, Frederick Edward, 92.
Blackerby, Robert Ernest, 138.
Blackmer, Frank Jay, 94.
Brown, Eugene Harold, 138.
Buchtel, Frost Craft, 295.
Burgin, James Flannery, 94.
Colby, Herbert E., 339.
Craney, Joseph Patrick, 220.
Dooley, Willis P., 220.
Evans, Emerson E., 220.
Gardner, Greyson Curtis, 93.
Grover, Burton Baker, 381.
Hook, Merrit B., 266.
Jackson, Frederick A., 93.
Keen, William W., 296.
Kickland, William Alfred, 339.
Moleen, George Arnold, 295.
Pecony, Joseph W., 220.
Pipkin, George Phillip, 138.
Rothwell, William J., 138.
Turrell, Herbert C., 93.
Williamson, Arthur Ramsey, 93.
Wolfe, Roy Ennis, 340.

Obituaries—Wyoming:

Hamilton, A. C., 299.
Schunk, E. R., 519.
Wyman, William A., 453.
Yates, W. W., 519.

Oculo-Glandular Tularemia, An Atypical Case of: Case Report (Palmer and Reifsneider), 128.
Osteochondritis (Beebe), 118.
Outlook for Medicine, the (Amesse), 242.
Packard, B. B. and Forbes, Roy P.; The Treatment of Anuria by Kidney Decapsulation: Case Report, 74.
Palmer, F. E. and Reifsneider, J. S.; An Atypical Case of Oculo-Glandular Tularemia: Case Report, 128.
Peritonitis, Primary Streptococcic, in Children (Barber), 324.
Perkins, Earl J. and Hepp, L. Clark; Unusual Appendiceal Abscess: Case Report, 331.
Pituitary Syndrome Apparently Related to Pregnancy, a: Case Report (Clagett), 169.
Post-Operative Conduct of a Surgical Case, Procedures Which Should Be Routine in the (Prey), 386.
Post-Pneumonic Non-Resolution and Syphilis (Kampmeier), 273.
Pregnancy, A Pituitary Syndrome Apparently Related to: Case Report (Clagett), 169.
Pregnancy Test, Modifications of the Aschheim-Zondek (Jones), 49.
Presidential Address, Public Health and the Medical Profession (Stephenson), 393.
Preventive Medicine and Immunization (Goodnough), 523.
Prey, Duval; Procedures Which Should Be Routine in the Post-Operative Conduct of a Surgical Case, 386.
Primary Streptococcic Peritonitis in Children (Barber), 324.
Proceedings of the Sixty-Second Annual Session, Colorado State Medical Society, 460.
Proceedings of the Thirtieth Annual Session, Wyoming State Medical Society, 520.
Progress in Medicine, Recent (Rees), 428.
Public Health and the Medical Profession, Presidential Address (Stephenson), 393.
Public Health Notes, 36, 75, 130, 171, 211, 260, 282, 331, 374, 411, 441, 465.
Rees, Maurice H.; Recent Progress in Medicine, 428.
Reifsneider, J. S. and Palmer, F. E.; An Atypical Case of Oculo-Glandular Tularemia: Case Report, 128.
Rheumatic Fever (Frank), 245.
Rheumatic Heart Disease (Burnett), 248.
Ruddy, James; Simultaneous Perforation of Duodenum and Incarceration of Inguinal Hernia Duodenal Tube Feeding: Case Report, 169.
Rusk, Harvey S.; The Voice in Health and Disease, 463.
Sarcoma of the Small Intestine (Mumey), 12.
Sears, Thad P. and Black, William C.; Hodgkin's Disease Without Lymphadenopathy: Case Report, 208.

Secretarial Notes and Comment:

Secretarial Notes and Comment, 42, 84, 134, 176, 216, 263, 289, 335, 379, 415, 448, 468.
American Public Health Association Meeting, 176.
Colorado at the A. M. A., 263.
Doctors or Bootleggers?, 134.
Exhibit Awards at Estes Park, 415.
Important Rulings by the Publication Committee, 448.
Malpractice Epidemics, 134.
Medicolegal Digest, the, 42.
Meeting of the Western Branch, American Public Health Association, June 9-11, 1932, Denver, 264.
New Officers for 1932-1933, 415.
Program, Sixty-second Annual Session, Colorado State Medical Society, 335.
Statement by the Board of Medical Examiners, 216.

Septicemia in Children (Ginsburg), 406.
Sevier, Charles E.; Surgical Forms of Non-Tuberculous Joint Diseases, 251.
Sewall, Henry; Considerations on Allergy in Clinical Tuberculosis, 362.
Sims, H. J.; Experimental Production of Blood Changes Simulating Pernicious Anemia, 440.
Sinusitis with Osteomyelitis of the Rim of the Orbit: Case Report (Spencer), 259.
Smith, Fred M.; The Symptoms and Diagnosis of Coronary Artery Disease, 189.
Smith, Tinsley, Jr. and Friedman, Emanuel; Agranulocytosis: With Report of a Case in a Child, 26.

Societies, Medical—Colorado:
Arkansas Valley Medical Association, 495.
Boulder County Medical Society, 43, 136, 176, 219, 265, 293, 448, 495.
Clinical and Pathological Society, 448.
Colorado Neurological Society, 44.
Colorado Ophthalmological Society, 90, 137, 178, 219, 416, 495.
Colorado Otolaryngological Society, 88, 294.
Colorado State Medical Society, 181, 222, 343, 383, 418, 451, 497.
Crowley County Medical Society, 43, 176, 265, 338, 448.
Delta County Medical Society, 177, 219, 265, 448.
Denver County Medical Society, 43, 86, 136.
El Paso County Medical Society, 44, 87, 136, 449.
Fremont County Medical Society, 44, 87, 136, 219, 416, 495.
Larimer County Medical Society, 44, 87, 136, 177, 219, 293, 338, 381, 449, 495.
Las Animas County Medical Society, 219, 265.
Mesa County Medical Society, 137, 495.
Morgan County Medical Society, 177.
Northeast Colorado Medical Society, 44, 137, 266.
Northwestern Colorado Medical Society, 495.
Otero County Medical Society, 44, 87, 137, 177, 266, 293, 339, 449.
Prowers County Medical Society, 219.
Pueblo County Medical Society, 44, 87, 137, 177, 219, 266, 416, 449, 495.
San Juan County Medical Society, 88, 449.
San Luis Valley Medical Society, 449.
Weld County Medical Society, 88, 137, 219, 266, 294, 449.
Woman's Auxiliary, 46, 94, 138, 180, 220, 266, 296, 340, 380, 416, 449, 495.

Societies, Medical—Wyoming:
Albany County Medical Society, 420.
Fremont County Medical Society, 184.
Goshen County Medical Society, 183.
Laramie County Medical Society, 420.
Natrona County Medical Society, 100.
Northwestern Medical Society, 144.
Sheridan County Medical Society, 100, 183, 420, Sweetwater County Medical Society, 184.
Spencer, Frank R.; Sinusitis with Osteomyelitis of the Rim of the Orbit: Case Report, 259.
Spitzer, William M.; Fibrosis of the Bladder Neck with Regard to its Pathology and Rational Treatment, 18.
Stein, Hermann B.; Evaporated Milk in Infant Feeding, 281.
Stephenson, Frank B.; Presidential Address, Public Health and the Medical Profession, 393.
Summary of Health of Children in Midwest Grade School (Einhorn), 141.
Suprarenal Cortex, Addison's Disease and the Hormone of the (Kemper and Dickman), 105.
Surgical Tragedies (Van Meter), 421.
Syphilis, Post-Pneumonic Non-Resolution and (Kampmeier), 273.
Tonkin, A. B.; Infant and Maternal Mortality, 524.
Treatment of Anuria by Kidney Decapsulation, the: Case Report (Forbes and Packard), 74.
Trichomonas Vaginitis (Evans), 59.
Tuberculosis, Considerations on Allergy in Clinical (Sewall), 362.
Tuberculosis, Present Trends in (Harris), 155.
Tularemia in Mesa County: Case Report (Day and Walker), 373.
Tularemia, Oculo-Glandular, An Atypical Case of: Case Report (Palmer and Reifsneider), 128.
Ulcer, Bleeding, Meckel's Diverticulum: Case Report (McKeen), 258.
Undulant Fever in Colorado (Connor and Maier), 430.
Vaginitis, Trichomonas (Evans), 59.
Van Meter, S. D.; A Review of the Goiter Problem, 5.
Van Meter, S. D.; Surgical Tragedies, 421.
Vasomotor and Trophic Disturbances (Kamp), 302.
Vesical Neck Obstruction: Its Relief by Transurethral Resection (Low), 367.
Viko, L. E.; Cardiac Asthma, 149.
Voice in Health and Disease, the (Rusk), 463.
Walker, C. R. and Day, H. S.; Tularemia in Mesa County: Case Report, 373.
Woodward, William C.; A Study of the Medical Practice Act in Wyoming, 225.

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29. NUMBER 1 JANUARY. 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

OF MEDICIN 1932 LIBRARY

TABLE OF CONTENTS

Editorials
In Honor of Henry Sewall..... 1
What Price Patriotism..... 3
Dentists to Advertise Ethically..... 3
Practice of Medicine by Lay Corporations..... 4
Original Articles
A Review of the Goiter Problem, S. D. Van Meter..... 5
Sarcoma of the Small Intestines, Nolie Mumey.12
Fibrosis of the Bladder Neck With Regard to Its Pathology and Rational Treatment, William M. Spitzer.....18
Agranulocytosis: With Report of a Case in a Child, Emanuel Friedman and Tinsley Smith, Jr.....26
Public Health Notes.....36
Library Notes.....39
Biography as Related to Medical Terminology..41
Secretarial Notes and Comment
The Medicolegal Digest.....42
1931—A Record Year.....43
Annual Dues.....43
Medical Societies.....43
Woman's Auxiliary.....46
Colorado News Notes.....47
Wyoming Section
Editorials
The New Year of 1932.....48
The Wyoming State Hospital for the Insane.48
Your Dues Are Due.....49
Original Articles
Modifications of the Aschheim-Zondek Pregnancy Test, Rodney H. Jones.....49
Hospital Section
Editorials
The Retiring President.....Ten
The Hospitalization of Veterans.....Ten
Original Articles
Economies to Meet the Present Depression in Hospitals, Walter G. Christie ...Eighteen
The Community's Problem of Non-Resident, Indigent Patients Being Released From Our National Sanatoria, H. Schwatt.Thirty-Eight
Immaterial Medica.....Forty-Four

NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

MOUNT AIRY SANITARIUM

Mount Airy Sanitarium is conducted for the diagnosis and treatment of nervous and mental illnesses and for the residential care of patients afflicted with these disorders in chronic form. Cases of alcoholism and drug addiction received for treatment.

Medical Superintendent
J. P. Hilton, M.D.

Medical Director
C. S. Bluemel, M.D.

Consulting Staff
Glaister H. Ashley, M.D.
Edward Delehanty, M.D.
Franklin G. Ebaugh, M.D.
George A. Moleen, M.D.
Howell T. Pershing, M.D.
Leo V. Tepley, M.D.
Philip Work, M.D.

1205 Clermont St., Denver Telephone YOrk 0849

"If one wishes to fortify cod liver oil, it is far more reasonable and efficacious to increase its potency by adding a small amount of viosterol, which is a specific in the prevention and cure of rickets, as it brings about calcification not only of the bone but of the proliferating cartilage as well." (*Hess, Alfred F.*, Am. J. Dis. Child. 41:1081; May, 1931.)

MEAD'S 10 D Cod Liver Oil with Viosterol is the choice of many discriminating physicians because it represents the long pioneer experience of Mead Johnson & Company in the fields of *both* cod liver oil *and* viosterol.

Mead's 10 D Cod Liver Oil is the only brand that combines *all* of the following features:

1. Council-accepted. 2. Made of Newfoundland oil (reported by Profs. Drummond and Hilditch to be higher in vitamins A and D than Norwegian, Scottish and Icelandic oils). 3. Supplied in brown bottles and light-proof cartons (these authorities have also demonstrated that vitamin A deteriorates rapidly when stored in white bottles).

In addition, Mead's 10 D Cod Liver Oil is ethically marketed without public advertising or dosage directions or clinical information. With Mead's,—*you* control the progress of the case.

Mead's 10 D Cod Liver Oil is therefore worthy of your personal and unfailing specification. This product is supplied in 3-oz. and 16-oz. brown bottles and light-proof cartons. The patient appreciates the economy of the large size.

Mead Johnson & Company Pioneers in Vitamin Research **Evansville, Indiana, U.S.A.**



FOR CONVENIENT RELIEF OF NASAL CONGESTION . .

While the Chinese drug Ma Huang has been used for centuries, the value of ephedrine—its active alkaloid—has only recently become known. Investigation has shown that it is effective in the treatment of nasal congestion.

CAPSULES EPHEDRINE COMPOUND SQUIBB contain ephedrine oleate in combination with aromatic oils and preservatives in a petrolatum base.

CAPSULES EPHEDRINE COMPOUND SQUIBB are supplied in convenient boxes of one dozen and can be used anywhere at any time. These flexible, long-necked gelatin capsules provide a simple, effective means of applying ephedrine without the use of an atomizer.

For further information concerning CAPSULES EPHEDRINE COMPOUND and other Squibb Ephedrine products, write to the Professional Service Department, E. R. Squibb & Sons, 745 Fifth Avenue, New York City.

CAPSULES EPHEDRINE COMPOUND
SQUIBB

Excess Baggage

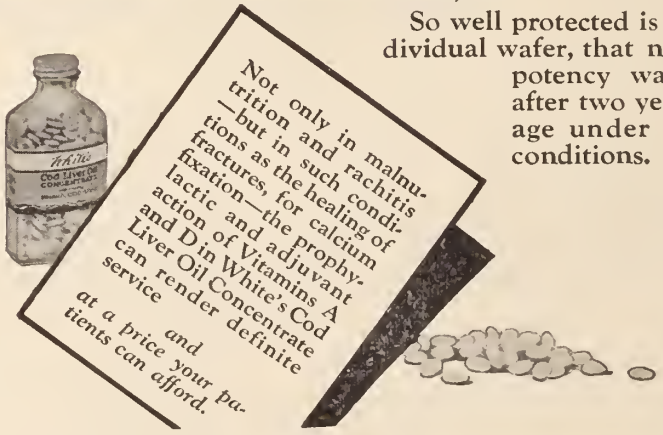


After all, unless its food value is desired, isn't the *oil* in Cod Liver Oil just excess baggage, burdensome to the taste and sometimes to the stomach?

The therapeutic value that lies in the Vitamins A and D of Cod Liver Oil—you can prescribe most readily and controllably, in compact, pleasant-tasting wafers, that have no "taste come-back."

Biologically standardized by the most rigid tests (not less than 250 units Vitamin A and 100 units Vitamin D in each wafer).

So well protected is each individual wafer, that no loss of potency was found after two years' storage under average conditions.



White's Cod Liver Oil Concentrate

HEALTH PRODUCTS CORPORATION, NEWARK, N. J.

The Carpenter-Hibbard Optical Co.

1628 Welton Street

Denver, Colorado

Phones KEystone 5287
KEystone 5288

Established
1874

The J. DURBIN SURGICAL SUPPLY CO.

1632 WELTON STREET DENVER, COLO.

QUALITY

Surgical Instruments, White Enamel Furniture, Hospital and Sick Room Supplies, Rubber Goods, Hearing Appliances.

Manufacturers and Fitters of Trusses, Elastic Hosiery, Abdominal Belts, Arch Supporters

We Rent Invalid Chairs, Beds and Infra Red Lamps

W.T. ROCHE

Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 YOrk 0901

18th at Gilpin

● One of a series of messages in the *Saturday Evening Post*, the *Literary Digest* and other magazines, setting forth some of the accomplishments of Medical Science in the diagnosis, treatment and prevention of disease.

PARKE, DAVIS & COMPANY

M. D.

There are savage tribes which send their sick into the wilderness to die—alone.

The letters "M.D." are a symbol of Civilization's achievement in protecting *you* from such a fate.

Civilized society says, "The title 'Doctor of Medicine' is my precious gift to those who will sacrifice many years of their lives to win the knowledge and the skill that Science has built up to guard my people against illness."

In this country, the letters "M.D." identify the chosen few who have made this sacrifice, and are qualified by experience to advise you, prescribe for you and care for you whenever illness threatens.

◆ ◆ ◆

Your doctor is not a superman or a magician. He is a human being, with human sympathy and understanding, working within the limits of scientific knowledge. But he achieves victories today which, only a few generations ago, would have been called miraculous.

With the help of modern scientific equipment, with a fund of co-ordinated medical and surgical knowledge undreamed of even by our grandfathers, *your* doctor can *prevent* diseases that were once supposed to be the natural heritage of mankind. He can *cure* diseases which were once unqualifiedly labeled "fatal".

But he can do these things only with your co-operation. To *get* his help, you must *seek* it.

The better he knows you, the more he can do for you. That is why it is short-sighted and wasteful to wait until an emergency *compels* you to see him. Regular health examinations are not costly—they are economical. They reveal—to the one man who can help you—the weak spots in your health-armor which need strengthening.

See your doctor before he has to see you.

PARKE, DAVIS & COMPANY
DETROIT, MICHIGAN
The World's Largest Makers of Pharmaceutical and Biological Products



"KNOCKS-THEM-ALL-SPRAY"



Quick and certain death for Germs, Moths, Roaches, Bed Bugs, Lice, Ticks, Fleas, Mites and countless other pests. It does not stain and positively leaves no bad after-effects.

"Knocks - Them - All - Spray" has been manufactured in Denver and sold thruout the Rocky Mountain section for the past sixteen years. When used according to directions it is guaranteed to give complete satisfaction or purchase price will be promptly refunded.

Hospitals and medical institutions are invited to write for free samples in liberal quantity.

The price of $2.40 per gallon includes metal container.



DOCTORS, in prescribing milk for baby feeding or patients on a milk diet, can feel at ease in prescribing Frink milk, a product bottled in Denver's largest and cleanest, home-owned dairy. With modern equipment and rigid sanitary rules, we are able to deliver to the home a pure and clean bottle of very high grade milk which is Nature's greatest health food.

1230 13th St. CARLSON-FRINK CO. MAin 0111

Free Sample For Analysis and Comparison

We claim that WHITE ROCK COTTAGE CHEESE is higher in food value than whole milk.

To any practicing physician who would like to satisfy himself that this claim is justified, we will send a generous sample, free of charge or obligation. Simply request it on your letterhead. This request will be held confidential.

WHITE ROCK COTTAGE CHEESE

Manufactured by

GOLD COIN CREAMERY CO.

1260 CURTIS ST. DENVER TAbor 2809

TRADE-MARK

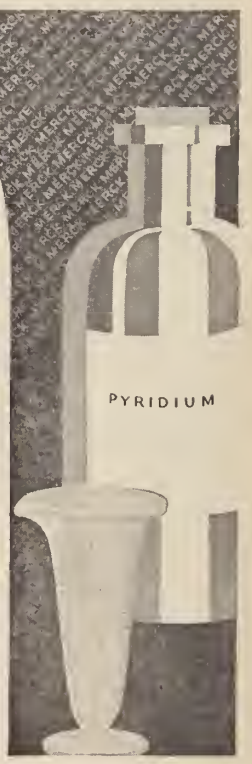
PYRIDIUM

Phenylazo-Alpha-Alpha Diamino Pyridine Mono-Hydrochloride (Mfd. by The Pyridium Corp.)



FOR URINARY INFECTIONS

An effective germicide in a chemically stable form. Pyridium has marked tissue-penetrating power, is non-toxic and non-irritating in therapeutic doses, and is widely used for combating urinary infections. The Council on Pharmacy and Chemistry of the American Medical Association has accepted Pyridium for inclusion in New and Non-Official Remedies. You can therefore prescribe this drug with full confidence that its therapeutic action will conform to the claims made for it. Avoid substitutes. Your prescription pharmacist can supply Pyridium in four convenient forms: as tablets, powder, solution or ointment. Write for literature.



E 2302

MERCK & CO. INC.
MANUFACTURING CHEMISTS
RAHWAY, N.J.

NURSES

OFFICIAL REGISTRY

Established to Meet the Community's Every Need in Nursing

Hourly Nursing Service.

Under-Graduate and Practical Nurses Provided.

Positions Filled.

Information on all nursing service.

This registry is endorsed by the Colorado State Graduate Nurses' Association and the American Nurses' Association.

KEYSTONE 0168

ARGONAUT HOTEL

DEPRESSION

People are always looking for an excuse to stall payment of past due accounts. But they will not deny themselves things to pay their just debts, with theatre and football games drawing capacity crowds, gasoline consumption increasing, bank and postal savings increasing. You may well doubt that things are as bad as painted. Wage cuts are balanced by large cuts in cost of all commodities, and costs of living.

Close watch on delinquent accounts is necessary to hold losses to minimum; 1931 shows more people moving than ever before. Your chances for collecting after a debtor has moved are 1 out of 5.

WITH OUR LARGE STAFF OF TRAINED COLLECTION EXPERTS YOU ARE ASSURED OF THE BEST COLLECTION SERVICE AVAILABLE.

SEND US THOSE SLOW ACCOUNTS NOW OR INSTRUCT US TO HAVE OUR REPRESENTATIVE CALL ON YOU—THE COLLECTION CHARGE WILL BE SMALL COMPARED TO THE LOSS SUSTAINED IF YOU ALLOW YOUR ACCOUNTS TO BE NEGLECTED.

Uncollectable Accounts Are Neglected Accounts.
No Collection, No Charge

The American Medical and Dental Association

700 CENTRAL SAVINGS BANK BLDG. PHONE TABOR 2331
DENVER, COLORADO

Amytal for Insomnia

Insomnia due to hypertension, various psychoses, drug addiction, alcoholism, hyperthyroidism, and restlessness due to various causes indicates the use of Tablets Amytal. In conditions where tranquillity and repose are desired Tablets Amytal (iso-amyl ethyl barbituric acid) may be prescribed in doses of 1½ to 3 grains. For sedation in ambulatory cases prescribe Tablets Amytal, Half-Strength, ¾ grain.

Eli Lilly and Company

INDIANAPOLIS, U.S.A.



Write for Pamphlet

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

W. H. Crisp, M.D., *Chairman*
C. F. Kemper, M.D.
C. S. Bluemel, M.D.

VOL. 29. NUMBER 1 JANUARY. 1932 $2.50 PER YEAR Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

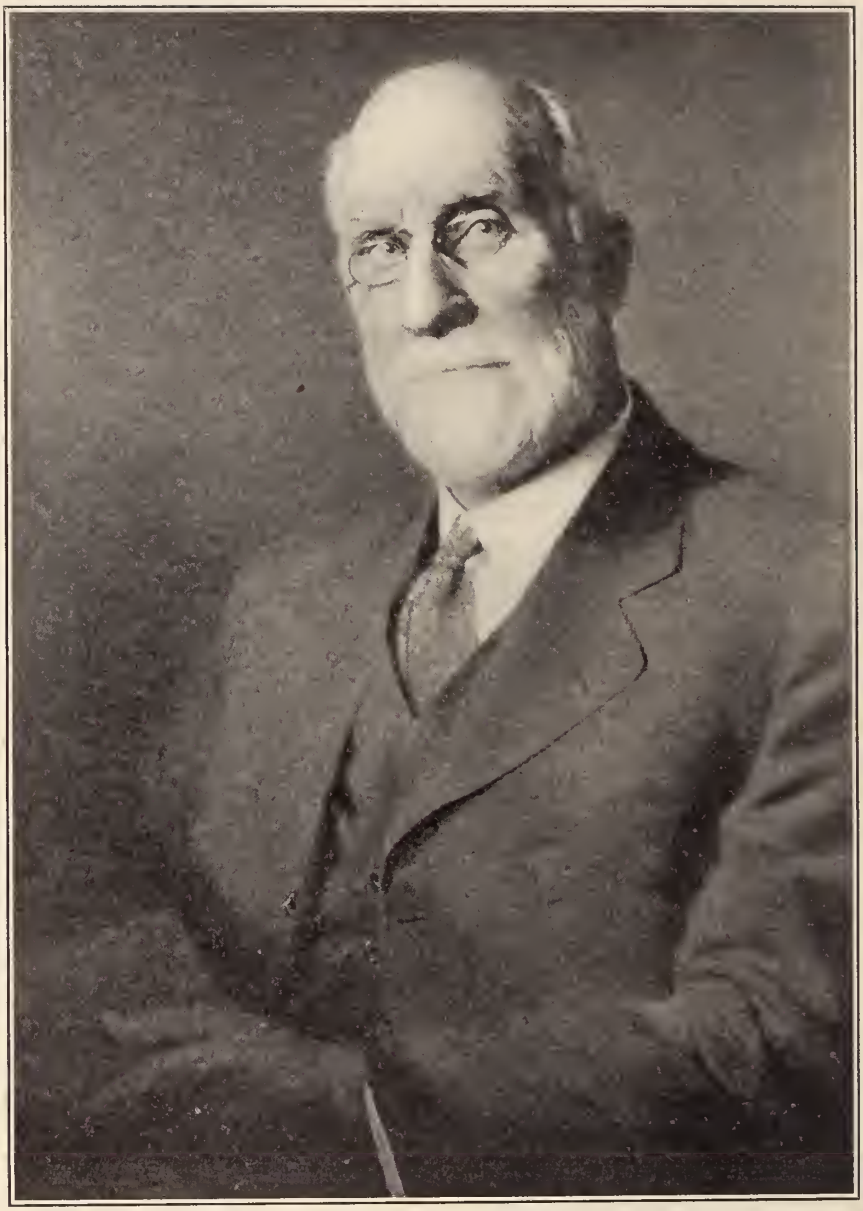
IN HONOR OF HENRY SEWALL

AGAIN the Medical Society of the City and County of Denver has paid tribute to the merit and leadership of one of its distinguished members. On December 3 over 250 professional friends and admirers of Dr. Henry Sewall from various parts of this state and the United States gathered in his honor at the Denver Country Club. Following a delightful banquet, a portrait of Dr. Sewall by the veteran Colorado Springs artist, J. I. McClymont, was unveiled and presented to the local medical society by friends of the honored guest.

The President of the Society, Dr. J. W. Amesse, presided over the meeting. Dr. James R. Arneill was toastmaster. Among his introductory remarks, Dr. Arneill commented upon the magic wrought in medical science by Dr. Sewall. The principal address of the evening was delivered by Dr. Gerald Webb of Colorado Springs, pupil and friend of Dr. Sewall. The paper was a tribute to the life and work of this master physiologist. Other addresses were given by Dr. Donald Balfour, surgeon from the Mayo Clinic, and by Dr. H. E. Robertson, surgical pathologist of that institution. Both commented upon the rare attributes of Dr. Sewall—his mind and imagination, his mastery of the art as well as the science of medicine. Undaunted by a prolonged illness, for which he came to this state over forty years ago, his research and literary work continued without interruption.

Dr. H. J. Corper of the National Jewish Hospital, representing the donors, presented the portrait to the Denver County Medical Society. His message conveyed the hope that the portrait will be placed in the library where it may serve always as an inspiration. Dr. Frank Kenney, as a member of the Board of Trustees, received the gift for the Society and emphasized the fact that lives of physicians everywhere have been broadened and enriched, and their vision clarified by the work of Dr. Sewall. His intellect, determination, kindness, and strength of character are clearly manifest in the remarkable likeness.

It is impossible in a brief space to enumerate all the activities and accomplishments of Henry Sewall. His earlier education was taken at Wesleyan and Johns Hopkins universities. The Ph. D. degree was taken from the latter institution in 1879. Studies abroad were accomplished in London, Berlin, and Heidelberg. Dr. Sewall returned to take the chair of physiology at the University of Michigan. Illness brought him to Colorado in 1885. The degree of M. D. was taken from the local medical school in 1889. He was professor of physiology here from 1890 to 1908 and professor of medicine from 1910 until 1917. Dr. Sewall has been president of the American Climatological Society, the Denver Academy of Medicine, the Denver County Medical Society, the Colorado State Medical Society, and the National Tuberculosis Association. One of his important activities was the formulation in 1919 of the Department of Research at the National Jewish Hospital. He has been



DR. HENRY SEWALL
Reproduced from the McClymont Portrait

the recipient of the Kober and Trudeau medals.

Another feature of this occasion was the reading of a few representative messages among hundreds received from friends—themselves eminent—in every part of the country. Such an outpouring of sentiment our state has rarely known. May it enhance our appreciation of one of the greatest among us.

WHAT PRICE PATRIOTISM

PRACTITIONERS of medicine and surgery today are finding themselves in certain competition with government hospitals. It is a question whether there is one among us who has not planned an operation and hospitalization with a patient only to lose him to federal care, regardless of his ability to pay or of the relation of his disability to war service. Someone with an eye toward special benefits has reminded him that such free treatment and hospitalization has been made available to him (by vote-seeking congressmen). In many such instances the patient is transported at government expense to and from a distant hospital; his convalescence, too, not infrequently seems peculiarly prolonged. The doctor, then, records another lost fee, the local hospital another empty bed.

In 1917 and 1918 a larger proportion of physicians entered government service than did members of any other professional group. These doctors now, together with citizens who maintain the local hospital and all who pay a federal income tax, are providing the cash for this free transportation, hospitalization, and treatment for some 15,000 World War soldiers suffering ailments in no way related to their war service and without consideration of their ability to pay. The medical profession advocates every fair consideration to our veterans, but feels keenly this absolutely unfair competition of Uncle Sam.

There are plenty of politicians in Congress ready to favor any organized minority for the sake of re-election. Veterans are thus made a grasping group whose self-respect is being undermined insidiously and their value as citizens destroyed. Someone must shame them out of unfair demands. Thoughtful taxpayers surely will not knowingly approve free medical, surgical, and hospital treatment of 4,500,000 veterans for the ordinary ills of civilian life which have their origin more than a decade after the end of the World War. One president has successfully blocked legislation which would extend such benefits to members of the families of former soldiers. One wonders what limitations, if any, such favors might reach were they to depend only upon the seekers of political favor. Such legislators must be rebuked at time of election and a peaceful patriotism instilled into the majority of a large group which might otherwise continue indefinitely its demands upon our treasury.

Calvin Coolidge has said, "All countries on earth in all history, all put together, have not done as much for those who have fought in their behalf as our country alone has done since 1880." Civil War pensions in 1919 amounted to $125,000,000—four times their amount fifty years before. Should the next Congress grant equality of pensions for veterans of all wars, the federal government would soon pay out a billion dollars a year.

Since physicians represent the group of citizens whose economy is seriously threatened by this possibility, it is their duty to lead the fight against this unsound federal policy. His fellow income taxpayers, hospital directors, and medical societies must properly inform the state congressmen and senators of the injustice of free services except for ailments reasonably attributable to war service and to those veterans actually unable to pay.

DENTISTS TO ADVERTISE ETHICALLY

THE American Dental Association has reached an important decision the results of which should be of interest to the medical profession. At its National Convention held in Memphis October 19 to 24, the Association decided to advertise. This breaks the years' old convention and the official

ethics against publicity. However, the advertising will not be in any sense commercial or individualized; it will be publicity on the highest possible plane and will be devoted exclusively to dental education.

In a letter to the American Dental Association, President Hoover voiced his approval of such an advance and such a modern step. He strongly favors educational publicity, particularly as it will benefit children.

This publicity will be handled by the American Dental Association through a new bureau that has been organized and which will keep the public informed on the care of the teeth, mouth hygiene, proper diet, and the prevention of dental troubles. The theme of the publicity will be along the lines of prevention, and, if heeded by the public, will save the people of America millions of dollars in dental bills. Newspapers, magazines, radio, and other forms of advertising media will be used in this publicity program, but in no sense will any individual dentists' names be mentioned nor fees quoted.

Group publicity in the form of dental education was started in Little Rock, Arkansas, in August, 1930, and brought such favorable response from leading dentists, educators, and the press that it was decided after this test to allow dentists of the whole country to resort to similar publicity in a likewise ethical manner.

The dentists of the country have taken a forward step, the reward of which publicity will be incalculable. They thus will adhere to their ethics and will do everything possible to aid humanity along the lines of dentistry.

Forward-looking physicians realize that the day is near at hand when the medical profession will waive its traditional reticence. The laity have faith in the printed page. Blatant quackery must be met with scientific truths. The layman's understanding of the human body in health and in disease must be made to preclude prevailing deplorable gullibility. None other than the medical profession is qualified to engineer this task.

The dental profession is to be complimented upon its intelligent action. May it hasten a corresponding resolution among all the physicians of America.

PRACTICE OF MEDICINE BY LAY CORPORATIONS

NEARLY every state has noted some attempt at corporate control of medical practice. The fields of the learned professions are frequently usurped by those who desire their prestige but attempt to shortcut the rigors of qualification. In a few states it is unfortunately possible for corporations, though themselves not able legally to practice any phase of medicine, to hire licensed physicians to perform the professional duties. Great claims, laid before the public, attract customers who then become the victims of clever salesmen. The employed physicians receive a very small per cent of the sums collected. The corporation determines all its policies, professional or commercial. Some have circularized a community claiming to render complete medical care for a cost as low as $12.00 per year for a family of five. They claim this to be possible as a result of increased business volume and elimination of bad accounts. The physicians are represented as competent and thoroughly interested in their patients welfare. Colorado has had such threats and has so far overcome them promptly, its laws being satisfactory.

The problem has become serious in some states because members of our county and state societies have been tempted to join such groups. Others have become identified with them, having been misled into believing them legitimate. The solution is not yet at hand, but most states have the situation under control. Some state boards, as for example in the District of Columbia, protect the public against fraud by including all such corporations or individuals, in any way associated with these exploits, within the definition of who may practice medicine. All but licensed physicians are excluded and the majority of such projects thereby eliminated at their inception.

A REVIEW OF THE GOITER PROBLEM*

S. D. VAN METER, M. D.
DENVER

In any review of the goiter problem we may well begin by propounding the question—What is goiter? It is unfortunate that the term goiter was originally chosen to designate the entity which is now universally recognized as goiter. It led to the general acceptance of the word as meaning any disease, tumor, or enlargement of the thyroid gland, and in the minds of many any tumor of the thyroid region.

The cause of this is not difficult to understand when we think of the utter failure during centuries of search to unravel the mystery of the basic cause of goiter. Of the thousand and one suggested causes none is satisfactory, and the laurel wreath waiting for him who discovers the real cause of the disease will be everlasting. Until that has been accomplished it is impossible to define properly the malady. For the time being we must be satisfied with a non-committal definition, such as: A disease of unknown cause, the most common characteristics of which are disturbed function and enlargement of the thyroid gland. While this definition defines only the most common features of the disease it is far less vulnerable than a definition formulated upon any basis the accuracy of which remains in the realm of doubt.

The next "black beast" in the study of goiter—one that has discouraged so many busy practictioners of medicine—is that of classification. Most every authority has apparently felt it was imperative that he make a classification of his own. This he has frequently done with total disregard for the necessity of distinction between types, varieties, symptoms, and sequelae. A review of the numerous classifications will reveal that the bases of all are either the histopathologic, etiologic, or clinical characteristics of the disease. Most all of them are rendered complex and unsatisfactory through the addition of other diseases of the thyroid gland and the erroneous designation of varieties, sequelae, and symptoms as types of goiter. As a consequence we experience great difficulty in readily understanding goiter literature, be it the product of tyro or world-wide authority.

The Committee on Classification and Nomenclature of the American Association for the Study of Goiter for several years has made extensive study of this phase of the problem. It finally came to the conclusion that with our present lack of knowledge of the basic cause of goiter it was useless to attempt to formulate any satisfactory classification on etiology. Further, that owing to the wide divergence of opinion of histopathologists the same futility applies to the interpretation of histo-pathologic findings as a basis for a pathological classification. These conclusions left the clinical features and physical characteristics as the only remaining basis upon which to construct a practical classification. At the recent Kansas City meeting the Committee offered four recommendations to the Association:

1. As a clinical classification of goiter:
   Type 1. Non-toxic diffuse goiter.
   Type 2. Toxic diffuse goiter.
   Type 3. Non-toxic nodular goiter.
   Type 4. Toxic nodular goiter.

2. In the matter of nomenclature that our association advocate a policy of using the simplest and yet the most descriptive terminology possible.

3. That the use of proper names, while it is impossible to dispense with many well established ones in goiter literature, be discouraged, as should coined words invented to popularize a fad or fancy.

4. That emphasis should be made upon the importance of not confounding varieties and sequelae with types. (The use of such terms as exophthalmic, hemorrhagic, cystic, adolescent, colloid, intra-thoracic, substernal, and congenital are perfectly proper when used to describe varieties, but only

*Read before the meeting of the Denver County Medical Society in honor of Dr. Edward Jackson, Oct. 6, 1931.

constant characteristics should be used to designate types.)

The Association in general session accepted these recommendations and approved the clinical classification offered as one to be used by the members of the Association and the profession until a better one can be formulated. This is certainly a step forward in the matter of clarifying goiter literature as it offers a simple and practical clinical classification. It does not attempt to explain the nature of thyrotoxicoses or the unknown etiology of the disease and thereby avoids the wide diversion of opinion on those unsettled features of the goiter problem.

Etiology and Pathology

When we look into the subject of the etiology of goiter, the most interesting subject in the entire study of medicine, we are confronted with the fact that the secret of its basic cause has for ages successfully eluded investigators and that we are but little ahead of our medical brethren of a century or more ago in our knowledge of this important foundation stone in the study of the disease. Of the many theories advanced none has stood the crucial test of scientific proof. It is not disputed that the cause, be what it may, is usually intimately associated with drinking water and alimentation. But is the noxious agent microbic or chemical? Is its action direct or indirect? These are questions that afford endless speculation and debate. Diet, sanitation, sex, and heredity unquestionably play important roles in the etiology of goiter, but none of them solves the fundamental cause of the malady. The fact that non-toxic diffuse goiter is frequently limited to certain localities is conclusive of the existence of some etiologic factor peculiar to the confines of those localities.

Nearly a century and a half ago (1784-89) Valentin[1] observed epidemic goiter associated with hemeralopia among soldiers and not the officers of troops soon after assignment to the barracks at Nancy. He concluded that the immunity of the officers was explained by their better diet and superior wines as compared with those served the privates. The fact that epidemic goiter occurred only in endemic areas and not among scorbutic sailors afflicted with hemeralopia led him to believe that while deficient diet was the cause of hemeralopia it only aided in the development of epidemic goiter and was not the basic cause of the malady. Valentin of course knew nothing of vitamins but should be given credit for straight thinking.

The experiment of McCarrison, Marine, Webster and others in which goiter was developed in animals given restricted diets prove that avitaminosis is an etiologic factor in goiter, but in those experiments microbic contamination of the food used was not fully eliminated. In the recent experiments carried on by McCarrison the fact that the controls were prevented from developing goiter by the administration of iodine, thyroxin, thymol, and manganese chloride is strongly in favor of an infectious agent being taken into the stomach along with the article of food. Certain it is that pollution of water or diet with excrementitious material from goitrous patients has produced the disease in man and other animals. The admirable investigations of that experienced and deep student of the goiter problem, Andre Crotti, lead us to feel he has all but discovered the specific cause, and let us hope he may yet guide us out of darkness.

The well established fact that the administration of iodine prevents the development of goiter, and that drug's essentiality in the function of metabolism have led many into the erroneous conclusion that goiter is an iodine deficiency disease. The exhaustive surveys and observations of McCarrison[2] in India should suffice to disprove that conclusion.

Its refutation has been well expressed by Galli-Valerio[3] in his summary on the etiology of goiter in which he says:

(a) "Because even where idoine is present in excess goiter may develop.

(b) Because deficiency of iodine causes atrophy, not hypertrophy, of the thyroid gland.

(c) Iodine is merely in some way an antidote to goiter as is quinine to malaria. Deficiency of quinine does not give rise to malaria, neither does deficiency of iodine give rise to endemc goiter."

There is much to support the theory that the basic cause of goiter may act primarily by disturbing the complex processes of the intestinal canal and produce some toxic substance which deranges thyroid physiology and in turn causes the histo-pathologic goitrous changes in the gland. The exacerbations of thyroid enlargement noted during periods of obstipation and the remissions coincident with purgation support the theory that the causa causans of goiter is of this nature. Therefore, with our present knowledge we can go no farther than to say we do not know the basic cause of goiter; that although the cause is not known, the preponderance of evidence is in favor of some specific noxa intimately associated with polluted drinking water or contaminated food; and while iodine without question is prophylactic, it cannot be claimed that goiter is an iodine deficiency disease.

When we consider the question of whether the cause of non-toxic diffuse goiter and that of toxic diffuse goiter are the same, we veer our ship into disputed territory and enter deep water. While there is much to support the belief that the etiology of the two types is not identical it is safer to admit that possibility, but to take the position that probably the basic cause is the same in all types. The explanation of their apparent independence may lie in special susceptibility to the goiter noxa or its degree of virulence. To assume with certainty that they are two distinct diseases before there is proof positive of that assumption is unnecessary and might place one in an embarrassing position when this debatable question is finally settled.

The diligent investigations of Rienhoff[4] are very convincing of the reasonableness of the conclusion that these two types represent active and regressive stages in pathologic processes of a single disease. His conception that the more colloid a thyroid contains the less active it is, I think is well taken although this conclusion is contrary to the idea of some pathologists. It is generally conceded that the first pathological steps in the development of goiter are hypertrophy and hyperplasia, but it is difficult to determine whether these processes are functional or pathological. It is logical to conclude that functional hypertrophy and hyperlasia of the thyroid parenchyma are due to an effort on the part of Nature to respond to physiological demand, but we do not know the cause of pathological hypertrophy and hyperplasia any more than we know the cause of goiter. Nor can we satisfactorily explain why in some instances these processes are diffuse and in others localized, or their significance in relation, if any, to the cause of thyrotoxicosis.

The regressive changes observed in goitrous thyroid tissue after the administration of iodine are familiar to all who have studied sections of the gland, even though the cause of such changes is unsettled. These regressive or involution changes consist mainly in the accumulation of colloid in the acini and the subsequent flattening out of the epithelial lining with increase in the size of the lumen.

The most reasonable explanation of the development of non-toxic diffuse and nodular goiter is that they are the result of similar regressive changes preceded by abnormal hypertrophy and hyperplasia. If these active and regressive changes, of which there may be many cycles, involve the whole gland, the result is a diffuse or colloid goiter. When they are confined to one or more areas with intervening normal tissue we have the nodular type. No greater contribution to the histo-pathology of goiter has been made than the demonstration and proof by means of Rienhoff's[4] extraordinary, painstaking micro-dissection and wax-plate reconstruction work whereby he shows that the much-referred-to interacinary cell rests of Anton Wolfler do not exist. This suggests a possible explanation of the so-called fetal adenomata which may be nothing more than foci of marked glandular hyperplasia. The degenerative processes seen in nodular goiter represent the whole category of tissue changes in chronic hypertrophy and in-

flammatory conditions. The problem of greatest interest in these changes is whether any of them are responsible for toxic symptoms. I firmly believe they are, but can offer no conclusive proof of my belief.

The arrhythmia and cardiac decompensation so frequently seen in old nodular goiter with normal or minus basal metabolic rates that disappear after removal of the goiter cannot, in my judgment, be explained by hyperthyroidism. It is not right to conclude that the toxic syndrome in such hypothyroid cases is the result of hyperthyroidism. The plea that such cases were originally hyperthyroid may be and probably is correct in most instances, but that does not fully explain their toxicity.

This conclusion does not in any way conflict with Rienhoff's statement: "Therefore, it would seem that the clinical syndrome of hyperthyroidism when present is always associated with the histological changes seen in the thyroid denoting hypertrophy and hyperplasia of the gland parenchyma." This statement is well supported by facts, but even though in addition we concede that the amount of hypertrophy and hyperplasia corresponds to the degree of hyperthryroidism, it is not right to conclude these processes are the cause of the thyrotoxicosis or that a nodular goiter may not be responsible for a thyrosis other than hyperthyroidism. The constant presence of hypertrophy and hyperplasia in hyperthryroid cases justifies the conclusion that they are in some manner intimately connected with the cause of hyperthyroidism, but it is illogical to claim that they are its cause. If that were so why do they not produce hyperthyroidism in nontoxic diffuse goiter?

Diagnosis

The diagnosis of goiter is not difficult so long as the case is typical. However, it requires constant care and watchfulness on the part of the clinician not to overlook the disease in atypical forms. Mistakes in such cases are frequently the result of forgetting that demonstrable enlargement of the thyroid is not essential to a positive diagnosis and that basal metabolic rate readings while extremely valuable are not conclusive.

A tachycardia without other explanations; a voracious appetite associated with loss of weight; a high systolic and low diastolic blood pressure without aortic lesion; a dry skin with clammy palms; a tolerance to cold; hypersensitiveness, nervousness, apprehensiveness and irritability developing in an even dispositioned individual; a fine tremor of the extended hand; weakness of the quadriceps; fatigue on waking in the morning or after slight exertion; a glassy appearance of the conjunctiva or a stare even in the absence of the almost pathognomonic sign of exophthalmos or demonstrable enlargement of the thyroid are symptoms any one of which should always arouse suspicion of goiter. None is pathognomonic, but when they are found together there is little need for further investigation before making a positive diagnosis of goiter.

It is a great mistake to rely solely upon the diagnostic aid of basal metabolic rate readings even though carefully made. We must not forget that there are patients whose normal basal rates do not correspond with the accepted tables. Plummer[6] has shown that the variation in some instances is sufficient to allow the apparent contradiction of an existing hyperthyroidism in cases with persistent minus metabolic readings. Nevertheless, accurate evaluation of metabolism is our greatest aid in the diagnosis of atypical toxic goiter and with carefully taken and well weighed histories and thorough physical examinations keeping especially in mind the importance of the cardinal signs and symptoms of the malady we should make a correct diagnosis in the majority of atypical cases.

The most common source of error in the diagnosis of atypical goiter is that of confounding it with the deceptive manifestations of neurasthenia. It must not be forgotten that a goitrous patient may have a co-existing neurosis as well as some organic disease. Furthermore, in many cases of goiter we see neuroses and psychoses resulting from thyrotoxicosis. It is often difficult

to distinguish them from those of independent source.

Goiter unless malignant or the seat of hemorrhage seldom causes pain in the neck except in the post-mastoid region. This is a very common symptom in the neurotic patient. Dysphagia, choking sensations, and a tight feeling in the neck so frequent in neurosis are rarely seen in goiter except when it is very large or partially or wholly substernal. Tachycardia in goiter is persistent even during sleep but varies in neurosis. The pulse in the latter usually drops from twenty to forty points after a little rest. Tachycardia associated with a high systolic and low diastolic blood pressure in the absence of the aortic disease is almost pathognomonic of goiter, while tachycardia seen in neurosis is generally accompanied by low systolic and practically normal diastolic blood pressure.

The appetite is capricious in neurosis but always good in toxic goiter except occasionally in the late stages of the disease. Loss of weight and strength is frequent in many diseases. Toxic goiter and diabetes are the only diseases in which it occurs simultaneous with increased food intake. A neurotic may suffer from loss of weight and strength but will have a poor appetite while losing weight. As Seed[6] says of the Plummer chair test for quadriceps weakness, "The thyrotic patient attempts it boldly and fails; the neurotic patient attempts it apprehensively and succeeds." The manifestation of a weak quadriceps muscle prior to general weakness is of valuable aid in the early diagnosis of goiter. To this may be added a weakness of the lateral recti muscles of the eye. This is best detected by having the eye follow an object moving in a horizontal plane while the head is held stationary. Before the eyes reach the lateral limits of rotation, nystagmus develops. This is a valuable eye sign in making an early diagnosis of toxic goiter. The Von Graefe, Stelwag, Moebius, and Dalrymple signs usually occur later in the course of the disease and are consequently of little diagnostic help in the early stage of goiter.

Tremor in some degree is one of the most constant signs of thyrotoxicosis, but its diagnostic value is chiefly suggestive. In character it is usually fine as compared with the coarse tremor seen in neurosis. The patient who persists in objecting to the temperature of the room when all other occupants do not find it too warm is more than likely hyperthyrotic even though no other cardinal signs of toxic goiter are apparent to casual observation. Heat intolerance is seen in toxic goiter. The opposite is true in neurosis. Cold clammy palms in the case of patients who complain of being cold are common in neurosis. The warm perspiring palm associated with hot dry skin strongly suggest goiter.

The syndrome of incipient tuberculosis and that of early toxic goiter have similarities that are responsible for errors of diagnosis in both diseases. The difference in the quality of the pulse in the two conditions—recession of the pulse rate in tuberculosis on rest compared with the persistence of the tachycardia in goiter even during sleep—and the high pulse pressure generally seen in goiter with the normal or subnormal blood pressure of tuberculosis should be kept in mind and lead to a proper differential diagnosis. Furthermore, for some unknown reason active pulmonary tuberculosis and toxic goiter are seldom seen associated. Consequently, any positive evidence of active tuberculosis usually eliminates the probability of toxic goiter.

Treatment

Oliver Wendell Holmes truthfully said, "All diseases are amenable to treatment and cure, but in many of them, as is true of tuberculosis, the treatment must commence a generation or more back." This applies to goiter, especially the endemic variety of which so much has been said and written under prophylaxis of the disease. It is difficult to understand why so little attention is paid to the prevention of goiter when the possible achievements along this line through the judicious use of iodine, improvement in water supply, food supply, and sanitation are so well established. Were the amount of iodine that is injudiciously

given in the late stages of goiter judiciously administered to pregnant goitrous women and to children in their first decade of life much more would be accomplished in the reduction of the incidence of the disease.

The treatment of goiter during the first and second decades may be summed up in the judicious use of iodine, glandular therapy, and attention to sanitary environment, alimentation, and the general physical condition of the patient. After adolescence the efficiency of iodine, except as a preparatory agent for surgery, fades almost to the vanishing point. During the first two decades it is only the exceptional case in which surgical treatment is indicated, and it must be admitted that a limited number of the toxic diffuse type in adults make complete and lasting cures under non-surgical treatment.

However, the medical treatment of this type necessitates great sacrifice of time and economic loss, offers a low percentage of cures and a mortality approaching twenty-five per cent; whereas timely surgery gives prompt and almost certain good results with less than one per cent mortality. Consequently, there is no justification in the medical treatment of toxic diffuse goiter unless there is some special contraindication to operation. The practice of prescribing a test course of iodine in this type of goiter is inadvisable and often misleading to both doctor and patient. The almost certain temporary improvement not only gives false hopes of cure but often robs us of the good support of iodine preparatory to and after operation. It is generally agreed among goiter surgeons that cases in which prolonged and particularly repeated courses of iodine have been administered are almost certain to have stormy operative records, unsatisfactory convalescence, and more doubtful end results.

The Roentgen ray and radium undoubtedly are beneficial in relieving hyperthyroidism in some instances, but like other non-surgical measures have failed to accomplish many cures. The uncertainty of dosage and the possible ill effect upon the parathyroids render radiation in the treatment of toxic diffuse goiter of questionable utility.

When it comes to the treatment of the nodular type there is no room for argument. It can be positively stated that the only treatment of nodular goiter is surgery. The removal of nodular goiter in the middle and latter decades of life before the manifestations of toxic symptoms should no longer be considered radical. The insidious myocardial damage in cases of supposed non-toxic nodular goiter and the frequency of coincidental development of malignancy render thyroidectomy proper after the age of twenty-five unless there is some contraindication to operation. The age of twenty-five is of course arbitrary, but it approaches the average time of life when it is better not to treat a case expectantly. For example, it may be more justifiable to remove a non-toxic nodular goiter at the age of twenty-one in a woman contemplating matrimony than in one of twenty-five who has no such intention. The popular idea among the laity and one entertained by many of the profession that a nodular goiter which is apparently causing no constitutional symptoms is best let alone has been responsible for many of the damaged hearts and neuro-muscular systems that come to the surgeon too late to obtain good end results. Nevertheless, wonderful restoration to health may often be accomplished in such cases by thyroidectomy. The "come-back" of some of them is only short of marvelous. The fact that we see fewer of this class of cases than formerly indicates that both the profession and the laity recognize the advisability of operating nodular goiter before irreparable damage has been done.

In regard to the technique of thyroidectomy there is not much to say that is not already known. To the credit of surgery let it be acknowledged that the progress and perfection of the technique of thyroidectomy has made the greatest advance of any phase of the goiter problem. It is not amiss, however, to state that in no other surgical procedure should the fundamental principles of sharp dissection, careful hemostasis, and due regard for the rights of living tissue be more closely observed if the best results are to be obtained. I know of

no surgical procedure, empirical though it be, that gives the satisfactory results that thyroidectomy does in properly selected cases. However, the fact that thyroidectomy is but a part of the treatment of goiter should ever be in mind lest the importance of pre-operative preparation and post-operative care of the patient be neglected. Doctor and patient are too often deceived by the near magical improvement immediately following operation and forget the necessity of post-operative rest and care if the best end results are to be achieved. It has always been difficult in goiter surgery to secure proper post-operative rest, but in these times of extraordinary financial depression it is impossible in many cases to do other than to make a sacrificial compromise, to the detriment of the patient's welfare and the reputation of surgery.

The question of anesthesia in goiter surgery has given rise to much discussion. It is one that can only be decided by taking into consideration the many factors that enter into the problem. There is no question in my mind but that local anesthesia by novocain infiltration preceded by adequate preparatory hypnosis with sodium amytal administered orally and morphia and scopolamin hypodermatically is by far the safest and most satisfactory method of anesthesia in goiter surgery, except in cases where there is cicatricial tissue from a former operation. It is, however, presumed that the operator has the ability to secure and retain the full confidence of his patient, is of gentle touch, is willing to spend more time in operating, and above all has the blessed attribute of patience. Local anesthesia has the great advantages of co-operation of the patient, the incentive to gentler handling of tissues, allowing temporary or complete suspension of the operation at any stage of the procedure, the absence of turgescence of blood vessels, easier hemostasis, and above all the avoidance of the danger of a general anesthetic. The claim that the mental shock and strain during operation under local anesthesia more than offsets the objection to general anesthesia has nothing to justify it.

References

1. Valentin, M.: "Dissertatio medico-chirurgica de struma bronchocele dicta hemeralopia." (Thesis, 1789.)
2. McCarrison, R.: "Etiology of Goiter." p. 280, Trans. First Int. Goiter Conf. (Berne, 1927.)
3. Galli-Valerio, B.: "Etiology of Goiter." p. 311, Trans. First Int. Goiter Conf. (Berne, 1927.)
4. Reinhoff, W. F.: "Prize Essay," p. 167 Trans. A. A. S. G. (Seattle, 1930.)
5 Plummer, W. A.: Proceedings Staff Meeting, Mayo Clinic. Vol. 6, No. 22, June 3rd, 1931.
6. Seed, Lindon: "Thyrotoxicosis and Neurosis." p. 150, Trans. A. A. S. G. (Seattle, 1930.)

Osler on Treatment

There were those who called him a "therapeutic nihilist" and complained bitterly that he paid little attention to the treatment of the patient. It is true that in his ward teaching, as in the private ward, he did not dwell particularly on certain lesser details of treatment which are often important in daily practice. This part of the instruction he delegated to others. In the private ward he always left these duties to his assistant, saying that he wished to be considered as a consultant. But in relation to special conditions which he was studying, such as malarial fever, amebic dysentry and typhoid fever, he went into the treatment with care. If, however, he did not in his teaching give time to the discussion of the details of medication, to the character or the color or the taste of the menstruum in which the drug might be administered, he did, through his daily intercourse with patients, public or private, teach us how to conduct ourselves with the patient and how to practice medicine. This was quite in character with the conduct of his life. He taught by example, not by precept. He taught us very quickly that medicine could not be practiced and that disease could not be treated by rule or rote. He taught us that the treatment of the patient was the most important element in the treatment of disease, that the patient, not the disease, was the entity. He taught his students to use their minds and stand on their own feet. He taught us not to give medicine unless we had a real reason for it.—Thayer, W. S.: Reminiscences of Osler in the Early Baltimore Days, California & West. Med., September, 1929.

SARCOMA OF THE SMALL INTESTINE*

NOLIE MUMEY, M.D.
DENVER

Sareomata are rarely found in the gastro-intestinal tract. Of those that do oeeur, 65 per eent are loeated in the small intestine. Even with this pereentage, large elinies have eneountered few, as shown by their autopsieal and surgieal reeords; many surgeons with extensive experienee have not seen a single ease. In view of this faet, the two that have oeeurred in my own praetiee within six months of eaeh other, representing different types of tumors, seem worthy of reporting, along with a brief resume of the literature.

Rarity

Some eoneeption of the rarity of sareomata of the small intestine may be gained by the perusal of the following statistieal reports. Nothnagel reported 21,000 autopsies done in Vienna and found in the small intestine only three sareomata as against 248 careinomata. Aeeording to Speese, S. Moler reported in Prague 13,036 autopsies performed during fifteen years and found only 13 eases, all of whieh were lympho-sareomata. In the Berlin Pathologieal Institute, from 1859 to 1875, not a single ease of sarcoma of the small intestine was discovered. Speese also eites the figures of Nothnagel as having found in 2,124 autopsies in caneer cases, 243 careinomata as against three sarcomata of the small intestine. Staemmler found 33 sareomata in 54,000 neeropsy reeords. Libman quotes Mueller as having reported 521 eases of careinoma, of whieh 41 were in the small intestine.

TABLE I
AUTOPSY REPORTS

Investigator	Place	Autopsies	Sarcomata Small Intestine	Percentage
Nothnagel	Vienna	21.000	3	.014 %
Nothnagel	Vienna	2.124	3	14 %
S. Moler	Prague	13.036	13	.099 %
Staemmler		54.000	33	.061 %
	Total	90.160	52	.057 %

Mueller also reported 102 eases of sareoma, of whieh only two were in the small intestine. Baltzer, referring to the dissertation of Stort, eolleeted all the eases of sareoma whieh were investigated in the Berlin Pathologieal Institute in 1878 and did not find any oeeurring in the small intestine. Baltzer also eolleeted in 1892, 14 eases; Libman in 1900, 59 eases; and Leeene in 1904, 89 eases; Moynihan reports up to 1906, 40 eases of sareoma of the small intestine.

Location

Any part of the small intestine may be the seat of primary sareomata, although they seem to oeeur more often in the upper jejunum and lower ileum. In the large intestine they are less frequently found, exeept in the rectum. While the figures in the subjoined table are in no way eomplete, and represent only the eases reported by four different authors, yet they will give the reader some idea of their distribution.

TABLE II
DISTRIBUTION

Investigator	Small Intestine								Large Intestine					
	No. of cases	Small intestine	Duodenum	Duodenum and Jejunum	Jejunum	Jejunum and Ileum	Ileum	Ileum and Caecum	Caecum	Appendix	Transverse Colon	Rectum	Entire Gastro-intestinal tract	Small and large intestine
Krueger	38	16						1	2	1	1	16		1
Nothnagel	9		1		3		3		2					
Libman	52		15		18	2	14						3	
Speese	53			3	12	2	32						4	
Total	152	16	16	3	33	4	49	1	4	1	1	16	7	1
Percentage	Total 122 - 80.2 %								Total 30 - 19.8 %					

Of the 152 eases summarized in Table II, 122 (80.2 per eent) oeeurred in the small intestine. Of these 33 (27 per eent) were in the jejunum, and 49 (40 per eent) were in the ileum, while only 30 (19.8 per eent) oeeurred in the large intestine; 16 (53 per eent) of these were in the reetum. These figures show that four times as many eases oeenrred in the small intestine as in the large.

*Presented at the Medical Society of the City and County of Denver, Nov. 18, 1930.

Etiology

Little is known of the etiology. The same causative factors that are responsible for sarcomata in other parts of the body no doubt also play a role in the development of sarcomata in the small intestine. In several instances trauma seems to have been associated with their origin, as is shown by Table III, representing 131 cases reported by Lowenstein; out of this number only one occurred in the small intestine.

Symptoms

The symptoms of sarcoma of the small intestine are strikingly similar in nearly every

TABLE III

COMPARATIVE TRAUMATIC ETIOLOGY OF SARCOMA OCCURRING IN DIFFERENT PARTS OF THE BODY

No	Reported by	Journal	Date	Sex	Age	Location	Kind of tumor	Kind of trauma	Time of appearance after trauma	Duration of life after trauma
1	Liebe	Diss Strassburg	1870	Fe	55	Breast	Cysto Sarcoma	Pin prick	11 mo	not given
2	"	"	1878	Fe	17	Left side pelvis	Osteo Sarcoma	Fall on hip	5 mo	not given
3	"	"	1881	Fe	not given	Shoulder	Osteo Sarcoma	Fall on shoulder	5 wks	cured
4	"	"	1881	M	54	Cheek	Melano Sarcoma	Blow on cheek	3 wks	4 mo
5	"	"	1881	Fe	4	Nose	Osteo Sarcoma	Blow on nose	3 mo	[illegible] mo
6	"	"	1881	M	24	Back of head	Spindle cell	Fall on head	3½ mo	6 mo
7	"	"	1881	M	30	Chest	Osteo Sarcoma	Hit in chest	7 mo	7 mo.
8	"	"	1881	M	45	Rt hip	Osteo Sarcoma	Fall on hip	1 mo.	11 mo
9	"	"	1881	M	24	Femur	Osteo Sarcoma	Hit by stones	6 mo.	24 mo
10	"	"	1881	M	35	Shoulder	Osteo Sarcoma	Hit by stones	6 mo	6 mo
11	"	"	1881	M	26	Elbow	Osteo Sarcoma	Fall on elbow	3 mo	12 mo
12	"	"	1881	Fe	15	Wrist	Osteo Sarcoma	Twisting wrist	4 mo	cured
13	"	"	1881	M	19	Knee	Osteo Sarcoma	Blow on knee	4 wks	8 wks
14	"	"	1881	M	21	Knee	Cysto Sarcoma	Fall on knee	3 mo	10 mo.
15	"	"	1881	M	24	Femur	Osteo Sarcoma	Blow on knee	6 mo	10 mo
16	"	"	1881	M	15	Knee	Osteo Sarcoma	Fall on knee	2 mo	8 mo
17	"	"	1881	M	22	Knee	Osteo Sarcoma	Fall on knee	10 wks	10 wks
18	"	"	1881	Fe	15	Leg	Hemangio Sarcoma	Blow against stone	10 mo	13 mo
19	"	"	1881	M	26	Testicle	Cysto Sarcoma	Blow on scrotum	6 mo.	12 mo
20	Friedeberg	Klin. Therap. Woch.	1891	M	47	Brain	Glio Sarcoma	Blow on head	4 mo	16 mo
21	Lowenthal	Arch. f. klin. Chirurgie	1895	Fe	68	Brain	Fibro Sarcoma	Blow of hammer fracture temporal bone	not given	2½ yr
22	"	"	1895	Fe	44	Head	Myxo Sarcoma	Blow on head	14 mo	14 mo
23	"	"	1895	M	11	Sup. maxill	Sarcoma	Box on ear	2 mo	3 mo
24	"	"	1895	Fe	55	Maxilla	Giant cell Sarcoma	Blow on head	6 mo	cured
25	"	"	1895	M	30	Rt thorax	Osteo Sarcoma	Blow on thorax	11 mo	11 mo
26	"	"	1895	M	40	Rt thorax	Giant cell Sarcoma	Fall on chest	2½ yr	2½ yr
27	"	"	1896	M	63	Lt thorax	Giant cell Sarcoma	Fall on chest	10 dys	31 dys
28	"	"	1893	M	64	Thorax	Chondro Sarcoma	Fall on chest	1½ yr	2½ yr
29	"	"	1895	M	31	Thorax	Round cell Sarcoma	Fall on chest	3 mo	cured
30	"	"	1895	M	22	Thorax	Osteo chondro Sarcoma	Fall on chest	3 mo	8 mo
31	"	"	1898	M	38	Thorax	Osteo Sarcoma	Fall on chest	8 yr	cured
32	"	"	1895	Fe	18	Breast	Spindle cell Sarcoma	Fall on breast	4 wks	4 wks

TABLE III
continued

No	Reported by	Journal	Date	Sex	Age	Location	Kind of tumor	Kind of trauma	Time of appearance after trauma	Duration of life after trauma
33	Lowenthal	Arch f klin Chirurgie	1896	M	Adult	Mediastinum	Round cell Sarcoma	Blow on breast	8 wks	8 wks
34	"	"	1895	Fe	36	Breast	Round cell Sarcoma	Blow on breast	23 mo	2 yr.
35	"	"	1896	M	7	Jejunum	Round cell Sarcoma	Blow on abdomen	3 mo	4 mo
36	"	"	1895	M	Adult	Liver	Round c Spindle cell Sarcoma	Blow on abdomen	2 mo	6 mo
37	"	"	1895	M	15	Liver	Angio Sarcoma	Kick on abdomen	2 mo	5 mo
38	"	"	1885	M	51	Pelvis	Sarcoma	Fall on buttocks	10 mo	1 yr
39	"	"	1895	M	23	Pelvis	Spindle cell Sarcoma	Fall on buttocks	5 mo	7 mo
40	"	"	1899	M	25	Coccyx	Myxo Sarcoma	Fall on buttocks	12 mo	cured
41	"	"	1886	M	48	Testis	Sarcoma	Blow on scrotum	7 mo	cured
42	"	"	1895	M	23	Testis	Fibro Sarcoma	Fall on perineum	6 mo	cured
43	"	"	1895	M	29	Testis	Sarcoma	Blow on scrotum	6 mo	cured
44	"	"	1895	M	37	Testis	Sarcoma	Crushing of scrotum	3 mo	4 mo
45	"	"	1895	M	25	Testis	Sarcoma	Crushing of scrotum	2 mo	4 mo
46	"	"	1886	M	71/2	Testis	Fibro Sarcoma	Fall on scrotum	3 mo	3 mo
47	"	"	1895	M	66	Clavicle	Lympho Sarcoma	Blow on shoulder	6 mo	8½ mo
48	"	"	1893	M	17	Shoulder	Round cell Sarcoma	Fall on shoulder	4 wks	4 mo
49	"	"	1895	Fe	Adult	Humerus	Osteo Sarcoma	Fall on shoulder	6 wks	No data
50	"	"	1895	Fe	23	Arm	Spindle round cell Sarcoma	Blow on arm	5 mo	No data
51	"	"	1894	Fe	28	Humerus	Giant cell Sarcoma	Fall on elbow	2 yr	cured
52	"	"	1895	M	19	Radius	Giant cell Sarcoma	Sprain of wrist	2 yr	cured
53	"	"	1895	M	Adult	Thenar process	Round cell Sarcoma	Blow on palm	4 wks	cured
54	"	"	1895	Fe	48	Femoral fascia	Fibro Sarcoma	Blow on thigh	10 mo	cured
55	"	"	1895	M	24	Femur	Round cell Sarcoma	Blow on thigh	6 mo	10 mo
56	"	"	1895	Fe	21	Femur	Round cell Sarcoma	Fall on knee	4 mo	8 mo
57	"	"	1895	M	31	Femur	Round cell Sarcoma	Fall on thigh	3 wks	8 mo
58	"	"	1895	M	27	Femur	Round c Spindle cell Sarcoma	Kick on thigh	3 wks	3 mo
59	"	"	1895	M	28	Femur	Sarcoma	Blow on knee	1 yr	cured
60	"	"	1896	M	21	Tibia & Femur	Osteo Sarcoma	Blow on knee	9 mo	15 mo
61	"	"	1895	M	19	Femur	Osteo Sarcoma	Fall on knee	2 mo	cured
62	"	"	1895	Fe	17	Femur	Myelogenous Sarcoma	Fall on thigh	3½ mo	not given
63	"	"	1895	M	19	Femur	Sarcoma	Blow on knee	3 mo	2 yr
64	"	"	1895	M	18	Femur	Sarcoma	Blow on knee	6 wks	cured
65	"	"	1895	Fe	17	Tibia	Sarcoma	Fall on leg	3 mo	4 mo

TABLE III
continued

No	Reported by	Journal	Date	Sex	Age	Location	Kind of tumor	Kind of trauma	Time of appearance after trauma	Duration of life after trauma
66	Lowenthal	Arch. f. klin Chirurgie	1895	M	23	Tibia	Round cell Sarcoma	Sprain of ankle	1½ yr	cured
67	"	"	1895	M	Adult	Leg	Round cell Sarcoma	Fall on knee	23 dy	30 dy
68	"	"	1893	M	26	Tibia	Sarcoma	Fall on knee	8 mo	cured
69	"	"	1895	Fe	26	Tibia	Giant cell Sarcoma	Fall on knee	4 mo	cured
70	Ziegler	Munch. Med Wochenschr.	1895	M	62	Testis	Sarcoma	Bruise of scrotum	2 mo	not given
71	"	"	1895	M	18	Humerus	Sarcoma	Fall on arm	4 mo	not given
72	Flittner	Diss Halle	1896	Fe	17	Femur	Sarcoma	Fall on femur	10 wks	8 mo
73	"	"	1896	M	46	Femur	Sarcoma	Fall on knee	4 mo	not given
74	"	"	1896	M	56	Femur	Sarcoma	Blow on shin	1 yr	not given
75	Langnicker	Zeitschr f Chirurgie	1899	Fe	35	Femur	Sarcoma	Sprain of knee	4 mo	cured
76	"	"	1899	M	18	Ankle	Sarcoma	Giant cell Sarcoma	1½ yr	cured
77	"	"	1899	Fe	11	Gum	Sarcoma	Tooth extraction	2 mo	cured
78	"	"	1899	M	30	Pelvis	Sarcoma	Blow on hip	3 mo	not given
79	"	"	1899	M	59	Ribs	Sarcoma	Blow on shoulder	3 mo	not given
80	"	"	1899	M	13	Femur	Sarcoma	Fall on knee	3 mo	5 mo
81	"	"	1899	Fe	59	Femur	Sarcoma	Blow on thigh	3 yr	3 yr
82	"	"	1899	Fe	19	Mandible	Fibro Sarcoma	Blow on jaw	1½ yr	cured
83	"	"	1899	M	55	Testis	Sarcoma	Fall on Perineum	1¾ yr	cured
84	"	"	1899	Fe	12	Femur	Sarcoma	Fall on hip	3 mo	cured
85	"	"	1899	M	34	Testis	Myxo Sarcoma	Blow on genitals	35 dy	4 mo
86	Eaimprecht	Beitr z klin Chirurgie	1899	Fe	55	Frontal Bone	Osteo Sarcoma	Blow on head	8 mo	not given
87	Ebosing	Hoch Deutsche Vol II	1894	M	Adult	Testis	Round cell Sarcoma	Blow on scrotum	4 mo	not given
88	"	"	1894	M	Adult	Testis	Round cell Sarcoma	Blow on scrotum	6 mo	not given
89	Machol	Diss Strassburg	1900	Fe	3	Mandible	Fibro Sarcoma	Blow on jaw	4 mo	not given
90	"	"	1900	M	28	Femur	Spindle cell Sarcoma	Fall on knee & hip	5 mo	not given
91	"	"	1900	Fe	36	Finger	Melano Sarcoma	Prick of needle	1 yr	cured
92	"	"	1900	Fe	30	Tibia & fibula	Sarcoma	Fall on leg	2 yr	not given
93	"	"	1900	Fe	17	Tibia & fibula	Giant cell Sarcoma	Fall on leg	13 mo	not given
94	"	"	1900	M	8½	Ileum	Osteo Sarcoma	Fall	5 wks	not given
95	"	"	1900	M	32	Pelvis	Sarcoma	Fall on pelvis	1 yr	not given
96	"	"	1900	M	22	Gluteal fascia	Sarcoma	Fall on hip	1½ yr	not given
97	"	"	1900	Fe	59	Rib	Round cell Sarcoma	Blow on back	5 mo	5½ mo
98	"	"	1900	M	28	Testis	Cysto Chondro Myxo Sarcoma	Blow on scrotum	4 mo	not given

TABLE III
continued

No	Reported by	Journal	Date	Sex	Age	Location	Kind of tumor	Kind of trauma	Time of appearance after trauma	Duration of life after trauma
99	Machol	Diss Strassburg	1900	M	25	Omentum	Sarcoma	Blow on abdomen	4 mo	not given
100	Moser	Jarosh Sache Leitung	1903	M	56	Scapula	Sarcoma	Blow on shoulder	4½ mo	14 mo
101	"	"	1903	M	63	Rib	Sarcoma	Blow on chest	2 mo	2½ mo
102	Sandhovel	Diss Bonn	1901	M	20	Scapula	Sarcoma	Fall on shoulder	11 mo	not given
103	K Wurz	Beitzur klin Chirurgie	1900	Fe	52	Coccyx	Sarcoma	Fall on coccyx	3 yr	not given
104	"	"	1900	Fe	19	Femoris muscle	Sarcoma	Fall on thigh	3½ mo	not given
105	"	"	1900	Fe	56	Scapula	Sarcoma	Strain of shoulder	4 wks	not given
106	"	"	1900	M	24	Femoris muscle	Sarcoma	Blow on thigh	3 mo	not given
107	"	"	1900	M	43	Femur	Sarcoma	Contusion of knee	3 mo	not given
108	"	"	1900	M	66	Femur	Sarcoma	Blow on leg	2 yr	not given
109	Wahn	"	1900	M	68	Head	Sarcoma	Blow on head	3 mo	not given
110	Urban	Therap. Monatsh	1901	M	30	Shoulder	Sarcoma	Blow on arm	2½ yr	not given
111	Hartzfeld	Zeitschr f. Geburtsh.	1904	M	Adult	Breast	Sarcoma	Pressure on breast	8 wks	3 mo
112	Lowenstein	Beitr. klin Chirurgie Heidelberg klin.	1904	M	41	Ischium	Sarcoma	Fall on ischium	3 mo	3 mo
113	"	"	1897	M	23	Shoulder	Spindle cell Sarcoma	Blow on shoulder	6 mo	10 mo
114	"	"	1897	Fe	62	Femur	Round cell Sarcoma	Fall on hip	3 mo	not given
115	"	"	1897	M	9	Femur	Round cell Sarcoma	Blow on thigh	4 wks	not given
116	"	"	1898	Fe	26	Humerus	Osteo Sarcoma	Fall on shoulder	2 yr	not given
117	"	"	1898	Fe	58	Forearm	Angio Sarcoma	Fall on arm	7½ yr	not given
118	"	"	1898	Fe	42	Maxilla	Round cell Sarcoma	Irritation of tooth root	5 mo	not given
119	"	"	1899	Fe	15	Os ilium	Osteo Sarcoma	Fall on hip	10 mo	not given
120	"	"	1899	Fe	43	Femur	Sarcoma	Fall on femur	10 mo	not given
121	"	"	1899	M	10	Humerus & scapula	Sarcoma	Fall on shoulder	2 mo	not given
122	"	"	1900	M	42	Tibia	Giant cell Sarcoma	Fall on leg	9 mo	not given
123	"	"	1901	Fe	30	Breast	Sarcoma	Blow on breast	14 mo	not given
124	"	"	1902	M	38	Radius	Round cell Sarcoma	Fall on hand	4 mo	not given
125	"	"	1903	M	57	Inguinal region	Lympho Sarcoma	Inguinal pressure	4 mo	not given
126	"	"	1903	Fe	11	Pelvis	Sarcoma	Fall on gluteal region	3 mo	not given
127	"	"	1904	M	12	Tibia	Sarcoma	Fall on leg	7 mo	not given
128	"	"	1904	M	12	Humerus	Giant cell Sarcoma	Dislocation of shoulder	11 wks	not given
129	"	"	1904	M	44	Orbit	Sarcoma	Blow on orbit	4 mo	15 mo
130	"	"	1904	M	26	Pelvis	Sarcoma	Blow on ischium	3 wks	not given
131	"	"	1904	M	34	Tibia	Chondro Myxo Sarcoma	Blow on leg	2 mo	not given

instance; the following seem to predominate:

1. Abdominal pains of indefinite character.
3. Irregular stools alternating with constipation and diarrhea.
3. Loss of weight.
4. Anemia and cachexia.
5. Palpable abdominal tumor, which may be movable or fixed.
6. Marked constitutional effects, with hidden local signs.

Obstruction resulting from sarcoma in the small intestine is less likely to occur, because it is due to kinks, adhesions, or growths in the mesentery; while in carcinoma it is more apt to occur because here it is due to cicatrical contraction of the lining membrane.

Several writers have asserted that perforation in sarcomata is rare. In my own cases, however, this occurred—in one while delivering the growth, in the other previous to his admittance to the hospital.

TABLE IV
CASE REPORTS

No.	Reported by	Journal	Date	Age	Sex	Location	Kind of Sarcoma	Symptoms
1	Wollenberg A	Berlin Wochenschr 1869 P 447	1869	21	Fe	Ileum	Spindle cell Sarcoma	Nausea, vomiting abdominal distension diarrhea
2	Wallenstrom and Beerwerg	Upsala Lakareforen Forh Vol 5 P 3388	not given	36	M	not given	not given	Strangulated hernia
3	Mason, W	London Trans of Patholog Soc Vol 24 P 161	1873	30	M	not given	Round cell Sarcoma	Mass. ascites
4	Bessol and Hagen	Virchows Archiv Vol 99 P 39	not given	7¼	M	Jejunum	Round cell Sarcoma	Pain, emaciation vomiting palpable tumor
5	Pick	Prager Med Wochen schr 1884 Vol 9 P 34	1884	35	M	Jejunum	Round cell Sarcoma	Stomach trouble four weeks vomiting
6	Beck, Hugo	Prager Zeitschrift für Heilcunde Vol 5 P 445	1884	31	M	Jejunum & Ileum	Round cell Sarcoma	not given
7	Nicolaysen	Helsingfors Diss May 10 Legend 3 Vol 5 P 45	not given	26	M	Jejunum	Spindle cell Sarcoma	Mild dyspeptic symptoms movable swelling in tumor
8	Haas	Wiener Medic Presse Vol 27 P 1451	1886	36	M	Jejunum	Spindle cell Sarcoma	Alternate diarrhea and constipation
9	Kraus Friedrich	Prager Medic Wochen schr Vol 9 P 109	1884	36	M	Duodenum	Round cell Sarcoma	Diarrhea & alternating constipation-abdom. mass
10	Zuralski, V	Dissertation Kingsberg in Preussen	not given	40	M	not given	Spindle cell Sarcoma	Symp. in multiple tumors abdominal mass- constipation
11	Ballzer, M	Archiv fur klin Chirurgie Vol 44 P 717	not given	44	M	not given	Spindle cell Sarcoma	abdominal mass irregular bowel movement- to me
12			not given	14	M	not given	Round cell Sarcoma	Nausea-vomiting abdominal mass 1 mo duration
13			not given	52	M	Ileum	Round cell Sarcoma	Abdominal mass loss of weight- constipation
14	Scudder, Chas	Surg, Gyn & Obst Vol 12 P 76	1911	37	Fe	not given	Lympho Sarcoma	Epigastric pain, vomiting, symptoms of obstruction
15	Libman, E	Amer Journ Med Sciences Vol 129 P 63	1905	35	M	Jejunum	Lympho Sarcoma	not given
16	Barling Gilbert	Annals of Surgery Vol 45 P 242	1907	6	M	Ileum	Round cell Sarcoma	Tumor - vomiting
17	Anderson Louise G	Brit Med Journ Vol 2 P 806	1907	48	Fe	Ileum	Lympho Sarcoma	Visible peristalsis and tumor
18	Erdman, J F	Annals of Surgery Vol 53 P 128	1911	57	M	Jejunum & Ileum	Round cell Sarcoma	Pain, vomiting and belching of bile
19	Firth, A C D	The Lancet Vol 1 P 881	1908	62	Fe	Ileum	Round cell Sarcoma	Visible peristalsis and obstruction
20	Speese John	Annals of Surgery Vol 39 P 762	1904	54	M	Ileum	Lympho Sarcoma	Constipation vomiting most severe attacks abdom pain
21	Libman, E	Amer Journ Med Sciences Vol 116 P 903	1898	12	M	Duodenum	Lympho Sarcoma	Pain in abdomen with distension
22			1908	3½	not given	Ileum	Lympho Sarcoma	Pain- vomiting enlarged abdomen
23			1900	18	not given	Jejunum	Lympho Sarcoma	Abdominal pain
24			1900	42	M	Ileum	Spindle cell Sarcoma	Irregular abdominal pain 4 yrs duration
25	Gowland F B	Med Journ of Australia Vol 1 P 223	1906	0	M	not given	Lympho Sarcoma	Pain, mass in lower abdomen
26	Rivers A B & Hartman H R	Amer Journ of Surgery Vol 5 No 2 Aug 1928	1928	38	Fe	Jejunum	Fibro Sarcoma	Anemia, loss of weight epigastric distress
27	Stern Karl	Berliner Klin Wochen schr Vol 46 P 1603	1909	57	M	Ileum	Round cell Sarcoma	Pain in abdomen alternative diarrhea & constipation
28	Sternberg Carl	Wiener Klin Wochenschr Vol 14 P 1048	1901	44	M	Jejunum	Spindle cell Sarcoma	Pain & mass in abdomen diarrhea & constipation
29	Solomon	Chemie Annalen Vol 6 P 148	1870	28	M	Ileum	not given	Constipation-vomiting
30	Barling Gilbert	Annals of Surgery Vol 45 P 242	1907	6	M	Ileum	Round cell Sarcoma	Abdominal pain & mass diarrhea
31	Fletcher, Wm	The Practitioner July & Dec Vols 1909	1909	30	M	Jejunum & Ileum	Lympho Sarcoma	Abdominal pain, vomiting constipation & tumor
32	Condat	Arch de Med des enfants Vol 24 P 479	1921	0	M	Ileum	Round cell Sarcoma	Pain in right abdomen simulating appendicitis-liver
33	Vautrin, A & Michan, P	Rev de Chirurgie Vol 42 P 443	1924	57	Fe	Ileum	Spindle cell Sarcoma	Bleeding constipation pain and abdominal mass
34	Douglas J	Annals of Surgery Vol 55 P 448	1912	24	M	Ileum	Lympho Sarcoma	Mass in abdomen with pain
35	Battle, W H	The Lancet Vol 1 P 258	1906	0	Fe	Ileum	Round cell Sarcoma	Pain- vomiting abdominal mass
36	Barlow, W L	Canadian Med Assn Journ Vol 10 P 459	1920	43	Fe	Ileum	Fibro Sarcoma	Pain in abdomen vomiting rectal hemorrhage

Diagnosis

The diagnosis is difficult in most cases, because it must be made from the symptoms which are such that the patient does not seek advice early enough. The final diagnosis is made at operation or at autopsy. The existing difference between the symptoms of sarcoma and carcinoma are striking, as may be seen from the following tabulation:

DIFFERENTIAL DIAGNOSIS

Sarcoma	Carcinoma
1. Stenosis rare	Stenosis frequent
2. Peristalsis not visible	Peristalsis visible
3. Marked anemia and cachexia	Anemia and cachexia not marked
4. Rapid course	Course slow
5. Growth large and more fixed	Smaller and more movable
6. Hemorrhage rare	Hemorrhage common
7. Age over 40	Age under 15

Varieties

Libman classified the varieties of sarcoma under the following:

1. Latent cases discovered at autopsy; 2. Tumors or abdominal distension; 3. Symptoms of obstruction or perforation; 4. Resemblance to tuberculous peritonitis; 5. Symptoms of jaundice; 6. Resemblance to ovarian cyst; 7. Resemblance to appendicitis.

Report of Author's Cases

Case No. 1: F. B.—white male, aged 57. Admitted to hospital April 18, 1927; occupation, cattleman. Complained of ventral hernia, resulting from an operation that he had had Oct. 20, 1924.

Family History: Essentially negative.

Past History: Had the usual diseases of childhood. Stomach trouble for past fifteen years; it began with pain in the abdomen, stabbing in character, followed by attacks of constipation. More or less vomiting occurred with the attacks and was accompanied by hematemesis. Three years previous to his admittance an operation was done for intestinal obstruction. On the operative record the surgeon wrote that he found a band about eight inches above the terminal extremity of the small intestine. His symptoms at that time were loose watery stools with mucus and blood which continued for two months. He was then seized with a sudden abdominal pain, vomiting brownish material, and inability to move his bowels.

Present Illness: Chief complaint was pain in the right lower abdomen in the scar of a former operation in which there was a hernia. He stated that his general condition


GEOGRAPHICAL DISTRIBUTION OF SARCOMA
COMPILED FROM HOSPITAL REPORTS.
LEGEND
Hospitals acknowledging questionaires.
Sarcoma of the small intestine.
Sarcoma in other parts of body.
WASHINGTON
OREGON
CALIFORNIA
IDAHO
NEVADA
MONTANA
WYOMING
UTAH
ARIZONA
COLORADO
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
OKLAHOMA
TEXAS
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
S. CAROLINA
NORTH CAROLINA
VIRGINIA
W. VIRGINIA
PENNSYLVANIA
NEW YORK
VT
N.H.
MAINE
MASS
R.I.
CONN.
N.J.
DEL.
MD.
DC

had not improved since 1924. He has had several attacks of abdominal pain and experienced difficulty in defecation. The color of the stools varied from brown to white. He had lost about twenty-six pounds in weight. At times he would vomit undigested food, and at other times dark brown fluid.

Physical Examination: A poorly nourished white male whose chest findings were essentially negative. The abdomen showed a right rectus scar with an incisional hernia protruding about three inches. Large abdominal veins were prominent. No masses could be felt. It was thought that all his symptoms were due to adhesions and the hernia. Operation was advised and done on April 19, 1927.

Operating Findings: Under ether anesthesia an incision was made around the hernial mass which was dissected out and freed from all adhesions. The peritoneum was opened and much to my surprise I encountered a mass which was attached to the small intestine, which was ruptured on delivery. The tumor involved the ileum about twelve inches from the cecum. A resection and end-to-end anastamosis was done. Abdomen was closed in the usual manner. Patient made an uneventful recovery and was dismissed from the hospital and given deep x-ray therapy.

Pathological Report by Dr. Philip Hilkowitz: "Specimen consists of a portion of the small intestine measuring 11 cm. in length. The largest diameter is 4 cm.; the smallest 2.5 cm. The lumen averages 1.5 cm. in diameter. The folds of the mucosa are distinct. The walls are uniformly thickened around the entire circumference to 1 cm. in thickness presenting a grayish white color. The serosa is smooth; the mucosa presents an apparently unbroken surface.



Fig. 1. (Case No. 1.) Gross Appearance.

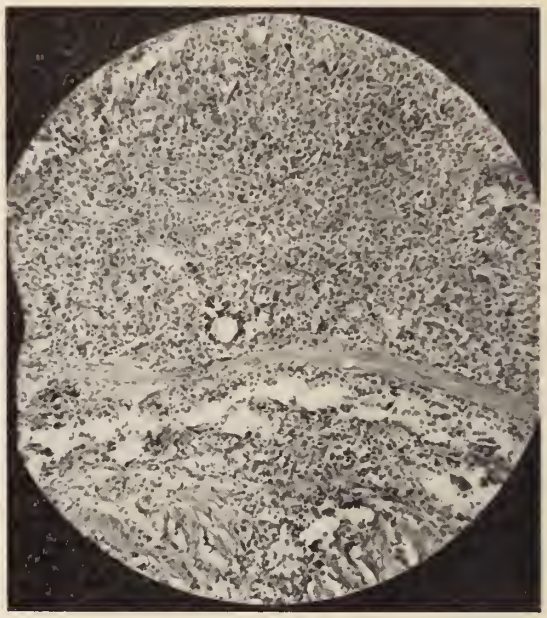


Fig. 2. (Case No. 1.) Microscopic Appearance.

"Sections reveal a somewhat thickened peritoneal layer. The circular layer of the muscular coat is heavily infiiltrated with lymphocytes separating the muscle fibers. There is also a lymphocytic infiltration in the longitudinal layer. The infiltration also extends into the submucosa.

"Diagnosis: Lympho-sarcoma of the small intestine."

Case No. 2: A. G.—white male, aged 57, laborer. Was admitted to the hospital Sept. 21, 1927, complaining of an intense pain in the lower abdomen. Family history was essentially negative. His past history had no particular bearing upon his present illness.

Present Illness: He had a severe pain in the lower abdomen about midnight but did not inform anyone until 7 a. m. I was then called to see him and found his abdomen very tense and rigid in the region of the

bladder. He stated that during the past two years he had some discomfort in the region of the stomach. For the last two weeks he had had a great discomfort with frequency of urination. His daughter stated that he had been perfectly well and had not complained previous to this attack.

Examination: After admission to the hospital, examination revealed board-like rigidity over the lower abdomen, with no localized areas of tenderness. The leucocyte count was 24,200, 94 per cent polymorphonuclear. Examination of the urine showed a trace of albumen with granular casts. Consultation was called. It was thought that the acute abdomen was due either to an intestinal obstruction, to a perforated gastric ulcer, or to peritonitis from a ruptured appendix. The patient was prepared for operation.

Operative Findings: Under ether anesthesia a high right rectus incision was made. On opening the peritoneum, we found free fluid stained with bile. The gall bladder, liver, and stomach did not show any abnormality. The appendix was adherent to the abdominal wall, but was unruptured. On examining the small intestine we found a large mass in the terminal ileum about eighteen inches from the cecum. It was about four and one-half inches in diameter, and involved the wall of the intestine. In the center of it was a perforated opening which would admit the tip of the small finger and extended into the lumen of the bowel. There were a number of large mesenteric glands that extended in all directions throughout the mesentery. A resection of about six inches of the small intestine and an end-to-end anastomosis was done. The abdomen was closed with drainage. The patient developed peritonitis and died two days following the operation.

Pathological Report by Dr. Philip Hilkowitz: "Specimen consists of a spherical mass 10 cm. in diameter; it is attached to the small intestine of which 9 cm. accompany the specimen. The growth is for the most part outside of the peritoneal layer, but afterwards penetrates the mucosa, and projects into the lumen leaving, from what can be made out in the preserved specimen, a perforated space some 5 cm. in diameter.



Fig. 3. (Case No. 2.) Gross Appearance.

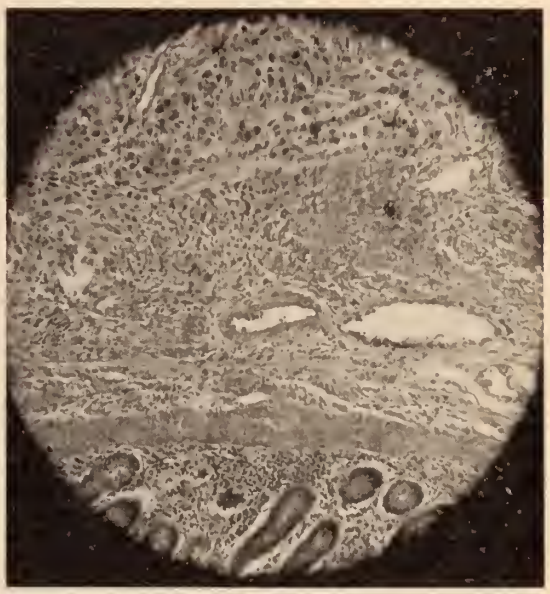


Fig. 4. (Case No. 2.) Microscopic Appearance.

"Sections reveal large spindle cells with deeply staining nuclei, some of which show mitotic figures; the stroma is dense connective tissue. In some places these masses have undergone a colloid degeneration."

Diagnosis: Fibro-sarcoma of the small intestine.

Conclusions

1. Sarcomata of the small intestine are rare compared with other growths.

2. The diagnosis is never made with great assurance, except at operation or autopsy.

3. Lympho-sarcoma seems to be the more common type.

4. Ulceration and perforation are quite common.

5. Sarcomata occur more frequently in the lower ileum and in the upper jejunum.

6. Trauma may play a part in the etiology.

7. Statistics show that sarcomata are more prevalent in males than in females.

8. My two cases were males, and perforation occurred in both of them.

FIBROSIS OF THE BLADDER NECK WITH REGARD TO ITS PATHOLOGY AND RATIONAL TREATMENT*

WILLIAM M. SPITZER, M.D.
DENVER

I had the pleasure of addressing this Society on the subject of "Median Bar at the Vesical Orifice," in the fall of 1922. Types of bars were described, the pathology of bar was discussed, and all that might have been said of treatment, at that time, was considered. Since that time, however, much has been written about the treatment, about new instruments to deal with the condition, and about the results of such treatment, but very little has been added to the study of the pathology of the lesion, or the study of the associated pathology. In 1922, knowing that much work would be done on this subject in the near future, I promised myself to address this Society again, on the same subject, if the opportunity offered, depicting and evaluating the advances. The title of this paper distinctly excludes the subject of hypertrophy or enlargement of the prostate, it being difficult enough to cover the field indicated by the term "Fibrosis of the Bladder Neck," in the time allotted me.

The successful treatment of any diseased condition creating symptoms which demand attention is, to a large extent, dependent upon a thorough understanding of the pathogenesis of such disease, and the pathology to be dealt with, together with a comprehension of how that pathology creates the symptoms for which the patient seeks relief.

Fibrosis of the bladder neck, sometimes known as "Median Bar," and heretofore known by many different terms, has always the same pathogenesis, namely, replacement fibrosis following inflammation. To prevent too much digression, this essay will not deal with the congenital narrowings at the bladder neck, or in the posterior urethra—these not resulting from scar formation.

Beginning with the pathogenesis: Inflammation of the anterior urethra leads in 85 per cent of the cases to inflammation of the prostate; inflammation of the prostate never exists without a concomitant posterior urethritis, the prostate draining directly into the posterior urethra by its many ducts; posterior urethritis, persisting for a few days only would inevitably lead to infection of the ejaculatory ducts, this latter insuring a seminal vesiculitis. Posterior urethritis means not only an inflammation of the posterior urethra, but trigonitis, the trigone being in its entire extent a portion of the posterior urethra, or vice versa—whichever way one chooses to consider it—the epithelium of the mucous membrane being of similar construction, and the musculature being one and the same. Or, one may consider the posterior urethritis a direct extension from the inflammatory condition in the anterior urethra, in which case the posterior urethritis would precede the prostatitis and vesiculitis. Whichever way one chooses to believe the extension posteriorly occurs, the result is the same: an inflammatory process occurring in the posterior urethra, the trigone, the prostate, and the vesicles, and such inflammatory process resolves itself promptly with a minimal amount of, or perhaps with no, damage to these structures, or becomes sub-acute and finally chronic.

The prostate and seminal vesicles may become first involved hematogenously from infection elsewhere in the body, just as the kidney frequently becomes so involved, such

*Read before the Sixty-first Annual Session of the Colorado State Medical Society at Colorado Springs, Sept. 15, 1931.

infection arising from the tonsils, teeth, skin, sinuses, intestines, or whereuot; but a few years ago, it was believed, before our better knowledge of the pathways of infection, that infections of these organs were always of venereal origin; today, we recognize that fully 50 per cent of the infections of the genital organs in the male are due to hematogenous carrying, or the process may come by direct extension from the kidney.

Whatever the cause of infection, its source and its pathways, the results are the same: namely, either prompt resolution without damage, mild and slow damage (and this would depend somewhat upon the type of infection), or more severe damage with more intensive attempts on the part of nature to wall off such damage; in other words, nature's attempt to cure results in the usual replacement fibrosis. And this takes place alike in all parts of both genital and urinary tracts. Consider now the virulent infection in these organs, with a persistent inflammatory process involving the glandular structures of the posterior urethra, the trigone, the prostate and the seminal vesicles, and their ampullae. (It has been held, and with truth, that cystitis or inflammation of the bladder itself, excluding the trigone, will promptly subside; this is because this portion of the bladder has no glandular structures in which such infection may be harbored. Not in all cases does this occur, however, because frequently the infection extends into the submucous and then the muscular coat, involving the lymphatics which reside in these two coats; in such event, the inflammatory process may become chronic here, resulting in what is known as an interstitial cystitis.)

Involvement of the trigone means involvement of the ureters, or at least of that portion of the ureter which is intra-mural, and thus the beginning of a ureteritis which may extend upward, or be carried by the lymphatics to the kidney itself, involving this latter and its pelvis, thus producing much and diverse pathology in the upper urinary tract. It is not uncommon to find, if the story be traced backward, that many renal infections have their origin in disease of the posterior urethral adnexa. In fact in all, or almost all, well advanced cases of fibrosis of the bladder neck, there is involvement of the upper urinary tract, whether such involvement be far enough advanced to produce symptoms or not. Frequently, the upper urinary tract involvements are part of or even all of the picture and produce much or all of the morbidity.

Thus, the patient presenting himself for diagnosis of fibrosis of the bladder neck has a variable chain of symptoms, each case being a case unto itself. Such chain of symptoms varies with the pathology in the bladder wall, in the genital tract adjacent to it, in the ureters, and in the kidneys and their pelves, the symptoms common to all being those caused by the bar itself. It is manifest that if the bar be excised by any of the methods to be dealt with later on and the operation be successful, there does not remain a cured patient, except in those cases where the pathology in other organs is so slight that symptoms do not emanate therefrom. For example, a patient presenting himself with frequency of urination, dysuria, difficulty in starting the stream and occasional attacks of fever, would be relieved in the event of a successful removal of the obstruction, of the symptoms due to this obstruction: namely, the difficulty in starting the stream, the residual urine with its tendency to increase the upper urinary tract difficulties and some of the ill health caused directly by this residual urine. But if an interstitial cystitis were present, or a marked old active seminal vesiculitis, or active ureteritis with damage to the kidneys, it must not be expected that the mere removal of the bar, no matter how successful this be, will remove all the other lesions which accompany the formation of the bar. To be sure, the badly damaged trabeculated bladder, with many diverticulae, would be greatly improved by the removal of such obstruction, but it would be beyond reason to hope for the restoration of such bladder to normal; and, therefore, if some of the symptoms are relieved and the patient be permitted to go his way without attention to the rest of the pathology and

its consequences, sooner or later he will again become invalided.

On the other hand, one is amazed at how rapidly and completely symptoms emanating from above a pathological narrowing in the urinary tract and due to pathology produced by such narrowing plus infection, clear up. Thus, in a large percentage of such cases, the removal of the bar at the bladder neck is all that is necessary. It cannot be accepted, however, that such fortunate consummation will occur in any given case; all cases must be watched after bar excision, in order that such treatment may be supplemented by other measures when necessary.

Therefore, the treatment must consist of the removal of the bar by one means or another, the careful watching of the patient for further symptoms—most of which he does not appreciate during the first flush following the relief of some of his troubles—and treatment for the associated pathology, if such be necessary. It must not be inferred that in each case of fibrosis of the bladder neck, all the above described pathology exists. While on the one hand it is very rare to find such fibrosis without considerable associated pathology in the remainder of the urinary or genital tract; yet, on the other hand, extensive destruction, sufficient to cause marked symptomatology or death, is also not common. Each case must be studied when it presents itself, with a view to determining how much relief will result from the ablation of the bar and how much additional treatment may be required for the associated lesions. Naturally, in the cases which are well followed (and all these cases must be well followed, this being one of the secrets of success in this work) an opportunity is given the surgeon to determine precisely what symptoms the associated pathology is responsible for, when he is satisfied that he has dealt with the bar successfully.

To be sure, if there be co-existing inflammatory lesions of vesicles, bladder, ureters, or kidney pelves, these must be dealt with after recovery from the bar excision, if, as above stated, the excision of the bar does not in itself relieve such symptoms. If there be a tight posterior urethra, due to fibrosis of the mucous membrane and submucous tissues of this tube, such condition demands appropriate treatment. Thus, massages of the prostate and vesicles, dilatations of posterior urethra and topical applications thereto, the passage of bougies through the ureters, and local treatment applied to the renal pelves, may be indicated after the patient has recovered from his bar excision.

Stones in the bladder, or diverticulae of this viscus, may demand some attention, and before closing I will deal again with these complications while enumerating the methods in use for dealing with the fibrosis of the bladder neck.

The existence of bar formation has been recognized for over a century, and the corelated symptomatology and pathology as distinguished from that of enlargement of the prostate, carefully studied. The first well recognized attempt to describe the condition was that of a young English army surgeon, Mr. George James Guthrie (1830). Attention of the entire world was called to this condition by the controversy and claim for priority between Civiale and Mercier, neither one of whom should have had credit which properly belonged to Mr. Guthrie. It was recognized by both these French surgeons that the method of attack for the alleviation of this condition should be transurethral, and an instrument for this purpose was invented by each of them. The controversy between these two served the purpose of calling the attention of the medical world to the existence of the condition and to this exent we are deeply indebted to them.

Because the differential diagnosis between enlargement of the prostate and fibrosis of the bladder neck was extremely difficult and fraught with error, visualization of the field being impossible, attempts at removal of the bar dropped into disuse. A further and more pressing reason for the discontinuance of this work was the inability to control the hemorrhage which followed such attempts almost invariably, thus greatly increasing the danger of the operation. However, in 1874, an Italian surgeon, Bottini, with a view of removing this bar trans-

urethrally, unaccompanied by the danger of hemorrhage, invented an incisor which cut by means of the galvanic current and this instrument (improved by addition of cystoscope) by Albert Freudenberg, in 1897, attained considerable popularity. Its limitations, however, finally dropped it into the discard and no further noteworthy attempts were made to attack this condition until Chetwood produced his instrument for use through a button-hole incision in the perineum. Young followed with his punch, reporting 100 cases of "Median Bar" excision in 1913, this punch having been first used by him in 1909. The stimulus to this work in the early twentieth century, was, of course, furnished by the advent of cystoscopy and endoscopy a few years before; thus the opportunity to better recognize the condition was afforded. As these instruments which visualize the bladder neck and the posterior urethra have improved (1910-30), more and more new instruments have been invented for this trans-urethral excision, each claiming superiority in various respects over its predecessors. Thus instruments were invented by Geraghty, Caulk, Day, Collings, Rose, McCarthy, Kirwin, and others, each supposed to have some advantage the others did not possess, this advantage most often being the prevention of hemorrhage.

As frequently happens, however, to those who have their eyes on the stars, the inequalities underfoot have been lost sight of in this truly forward march. And thus, in my humble opinion, cases of bar formation are operated upon by trans-urethral means which would better be dealt with by open operation: namely, supra-pubic cystotomy, or perhaps by perineal operation. Such, for instance, are cases associated with multiple stone in the bladder, contracture of the bladder, and such narrowing of the posterior urethra itself that instrumentation is not advisable.

Certainly there are cases in which the danger to life is increased in attempts to avoid open operation, and certainly there are cases in which supra-pubic drainage for a period of time, together with the rest the musculature of the bladder enjoys, benefits the patient more than catheter drainage possibly could. This is not the place to discuss catheter drainage, therefore suffice it to say that such drainage is becoming more and more unpopular. And catheter drainage is imperative after trans-urethral bar excision. As may easily be supposed, many of these cases, particularly those with considerable residual urine, have to be prepared for operation just as in the case of intended open prostatectomy. That is to say, among all other measures, gradual decompression by catheter drainage is compulsory. In such cases time is lost, suffering added, and danger increased by not opening the bladder from above. The writer is reporting 100 cases in which he has deliberately tried out various methods and various instruments in dealing with bar formation at the bladder neck and is attempting in the appended table to show the complications, the morbidity, the

TABLE

No. of Cases	Method of Bar Excision	Length of Stay in Hospital	Complications	Mortality	Average Residual Urine Before Operation	Average Residual Urine 3 Months After Operation	End Results as to Relief of Symptoms
47	Trans-urethral instrumental bar excision	7 days	Hemorrhage, Epididymitis, Uro-sepsis, Pyelo-nephritis	0	70 c. c.	6 c. c.	Excellent
16	Trans-urethral bar excision plus supra-pubic cystotomy	14 days	Epididymitis very rare. Uro-sepsis nil	0	85 c. c.	6 to 10 c. c.	Excellent
14	Instrumental bar excision through perineum	13 days	Epididymitis rare. Hemorrhage and uro-sepsis unknown	0	75 c. c.	5 to 10 c. c.	Excellent
23	Excision of bar through supra-pubic opening		No epididymitis, No hemorrhage, No sepsis	0	85 c. c.	6 to 10 c. c.	Excellent

mortality, the confinement to bed, etc., by the various methods, as well as the end results.

There has been considerable effort on the part of a few urologists here and there, notably John Caulk, Maximillan Stern, Frischer of Kansas City, and Davis of North Carolina, to extend the field of trans-urethral excision from bar formation to the removal of adenomatous tissue and the treatment of carcinoma of the prostate. The treatment of carcinoma of the prostate by this method, not only by these men, but by numerous others as well as by myself, in selected cases, has been quite satisfactory; the treatment of adenomata of the prostate has not been carried far enough nor have the reports been sufficiently illuminating nor has sufficient time elapsed as yet, for the writer to pass any opinion upon such attempts. It would be wise to withhold judgment until time and further effort in this field add to our knowledge.

As may be seen from the attached table, not quite as much has been gained by the trans-urethral methods as has been intimated by enthusiasts. Epididymitis is much more common by these methods than if the bladder be opened from above. Hemorrhage, with any instrument, is always present and sometimes occurs to such extent that the bladder must be opened from above for the purpose of evacuating clots which cannot be evacuated through the urethra. The hemorrhage in itself is not regarded as dangerous, but the shock attendant upon the inability of the patient to empty his bladder when the clots fill this viscus, augmented by the attempts on the part of the surgeon to remove such clots, does carry some danger with it. Besides this it is certainly rather embarrassing to confess defeat in being compelled to open the bladder from above to empty it of clots, thus confining the patient to the hospital for a couple of weeks, when one set forth blithely a few hours before to correct this condition without open incision and with the intimation that the patient would be at home in two or three days.

When the bladder is a mass of infected cellules, it would seem wise to rest such bladder for ten or fifteen days by opening it from above, and when diverticulae have to be dealt with, of course supra-pubic cystotomy must be done. If there be but a single stone or two or three such stones, all of rather small size, they may of course be removed by some trans-urethral method, but in the majority of cases where stone is associated with bar formation, it would be wiser to open from above. This is because the stones may be removed and the bar excised at the same sitting and because the chance of urosepsis is less than where such combination be practiced trans-urethrally, a method not advocated when enlargement of the prostate and stone co-exist. When bar formation and so-called adenomatous growths coexist, heretofore it has not been customary to attack the bar, which was cared for at the time of the prostatectomy; the majority of workers in this field feel that this is the correct surgery of the day. Such work would be done from above, or through the perineum, as the experience of the surgeon would dictate.

I have no particular instrument which I wish to recommend for the trans-urethral bar excision, having within the past few years used Caulk's cautery punch with much satisfaction and excellent results, McCarthy's punch (which seems a trifle heavy on the end within the grasp of the operator's hand), Collings Electrotome, and the Young punch—all with satisfaction, each with a minimum of bleeding at times, and each with serious bleeding at other times. It seems to me me that the type of instrument used does not cause or prevent bleeding, the bête noir of the surgeon who practices this operation. The secret of care of hemorrhage following the transurethral excision by any means or by any instrument, is the secret of prevention of clot formation in the bladder. If clots be permitted to form, it is manifest that they will plug the eye or eyes of the indwelling catheter; they will irritate the trigone, just as any solid or semi-solid substance touching the trigone does, and thus cause spasm. With this spasm, quite naturally, further bleeding and further clot formation occurs. Since the eye or eyes of the indwelling cath-

eter are plugged by such clots, the bladder will fill with urine and still further spasm will be produced by a full bladder; attempts to empty such organ, with further spasm, occasionally result in further bleeding and clotting. Thus a vicious circle is established. the patient, in severe pain, cannot be relieved by opiates and drops into a state of shock and becomes impatient and intolerant of instrumental attempts to empty the bladder of clots. At times it is rather difficult to introduce steel catheters, for the purpose of emptying such clots, into a urethra which is quite badly swollen from the instrumentation of six or twelve hours before. And so the tired surgeon, feeling that he will not succeed, opens the bladder from above and not only feels his defeat, but feels that he might have done cleaner work had the bladder been opened from above at the beginning. It should again be said, although the reiteration may be tiresome, that the amount of hemorrhage does not trouble the surgeon, such hemorrhage never being sufficient in itself to endanger the patient. The danger results from the inability of disposal of the clots from the closed bladder.

Summing up, therefore, the rational treatment of fibrosis of the bladder neck, one deals first with the prevention of this condition. Here massage of the prostate and vesicles and dilatations of the posterior urethra and bladder neck are in order to prevent the formation of such fibrosis. With failure of such prevention or with meeting the patient past the time where such attempts to obviate bar formation are indicated, there is a long period of time during which the patient may be observed, dilatations of the posterior urethra may be practiced, and no operative interference needed. This period ends with the oncoming of troublesome symptoms produced by the bar itself, instead of those of prostatitis, such as residual urine and the symptoms produced thereby, irritable bladder, etc. From here on, operative treatment is in order, and such operative treatment depends, as above stated, upon the study of the case. With a fairly clean bladder not badly trabeculated, no troublesome diverticulae being present, and no stone of the bladder, prostate, or vesicles existing, the punch operation by whichever trans-urethral method the operator chooses (using his pet instrument) is the ideal procedure.

As intimated throughout this paper, this procedure is practiced by the trained urologist only. This statement is not to be misunderstood, and no recommendation is made to him who is not a trained urologist, to keep out of this field. Such recommendation is unnecessary, as two or three attempts by the untrained operator will cure him of any further attempts in this direction.

To fight too many adverse conditions, in addition to the bar, is unwise, and when such complications are judged to be too much to meet through the urethra, the bladder should be opened from above and the bar punched out, just as it would be and with the identical instruments that would have been used for the trans-urethral work, under vision. Here the general surgeon may step in with impunity, doing just as good work as any urologist can do, perhaps, and without incurring any greater danger to life, or without requiring special instruments and knowledge to deal with hemorrhage, which might ensue and be troublesome when the trans-urethral operation is practiced. Since the bladder is opened from above and drainage established, the bleeding will not in any way bother either the patient or the surgeon, and the mortality is virtually nil with the punch operation whether it be done trans-urethrally or through a supra-pubic opening into the bladder. Furthermore, if a supra-pubic opening be made, all the refined electrical instruments for the prevention of hemorrhage and the seizure of excised portions are totally unnecessary and of no more value than the ordinary Young punch. This Young punch is an uncomplicated instrument, easily understood and easily handled, inexpensive, and very easily repaired. Or the excision of the bar may be done with knife or scissors, under direct vision. An immense advantage now becomes apparent, i. e., the opportunity to dilate a contracted posterior urethra with the finger.

When the punch operation, by any means,

is practiced trans-urethrally, epididymitis ensues in 30 per cent of the cases, from my own observation, and has never followed, except in one instance, where the bladder was opened from above. While such epididymitis is not as serious as when it follows prostatectomy, yet it confines the patient to the hospital for a variable period, averaging from three days to two weeks. In such cases, no time would have been lost by having had a supra-pubic opening, as the average punch operation, where a supra-pubic opening has been established, does not confine the patient to the hospital more than two weeks. When prostatic or vesicular stone or stones complicate a case, a perineal approach for the removal of such stone or stones will be found practical, and the bar may be dealt with by means of the operator's favorite method or instrument. In such case, bleeding is again not troublesome, as very large drainage tubes may be used through the open perineum, and clotting within the bladder does not become a problem.

Careful cystoscopic study of the case, as well as the urologist's familiarity with the possible accompanying lesions, is necessary before any operative work is undertaken, and the differential diagnosis, while fairly easy for the accustomed worker in this field, is almost impossible for the surgeon not well trained, and not bred to this work.

Closing, it is well to state that this work is yet young and many well trained men, particularly in our own country, are devoting themselves to attempts at correction of this condition with the minimum amount of danger, confinement to bed, suffering, and monetary expense. The results so far have met with such wonderful success that the work is bound to go forward. Finally, attempts in this direction may be made in the near future to deal with glandular enlargement of the prostate. There is no occasion, however, for the half-trained worker in this field blatantly to announce, as I have seen announced in print, that the operator who under any circumstances opens the bladder from above is criminal. Such statements emanate from minds which would standardize medicine, perhaps an excellent thing for some branches of industry, but an impossible dream when applied to a pseudo-science, which is mostly art.

DISCUSSION

T. Leon Howard (Denver): I do not imagine any of you men care much how we relieve the type of condition under discussion, but you would like to know how to diagnose them.

There is many a child who starts off life with median bar or bladder neck obstruction, and these cases that have their beginning in early childhood we are seeing at the age of 35 to 40. Dr. Spitzer spoke of median bar obstruction in cases from 50 years and upward, but the statistics compiled by Johns Hopkins a few years ago showed there were 63 per cent of the cases of an average age of 31 years compared to 37 per cent beyond this age.

All of you practitioners have cases coming to you that have certain types of bladder irritation. They are treated without making a diagnosis as to the cause and the patient goes from one to another without relief and it is often many years before this patient reaches a urologist. The general practitioner is the first man who sees these cases, and he should know more about the causes that produce the condition in these uncured and unrelieved bladder disorders. If we are not going to remove the cause early then we are all going to have damaged kidneys later.

I have two pictures here, one of a child two years old, the other of a child eleven years old, at the present time in the hospital, and both cases have badly damaged kidneys from bladder neck obstruction. This type of case is probably non-inflammatory in character, for their histories of bladder trouble date back to early childhood.

There is another type of case that we must recognize. It is the bladder neck contractures seen in women. Dr. Spitzer spoke of the so-called bar neck in men, but women have a very similar condition.

What are the symptoms the patients described by Dr. Spitzer complain of? Eighty per cent, frequency of urination, 50 per cent complain of pain, 49 per cent complain of difficulty in urination, 40 per cent complain of small stream, 11 per cent will tell you they cannot empty their bladders and there are 7 per cent with complete retention. Most practitioners are afraid to make a rectal examination. Why, I do not know, for much valuable information can be gained and certainly no diagnosis of bladder conditions is complete without it. Pass a sound on your patient and with it in the bladder make a rectal examination and see how much prostatic tissue is between the examining finger and the sound. You can frequently make a diagnosis quite accurately of median bar obstruction this way without the aid of the cystoscope.

George Myers (Pueblo): Dr. Spitzer has given us a very excellent essay on Fibrosis of the Bladder Neck. He has especially well covered the pathology of this condition, which has been more or less a matter of dispute for some time, and he has explained this in a very clear, concise manner.

The frequency of prostatic and vesicular infection today is being more clearly recognized than ever before, especially the hematogenous infection. In the early recognition and thorough treatment of these lesions we have a means of preventing fibrosis certainly in a fairly large per cent of cases, and I believe in the future this

condition will be seen less frequently as a result of proper treatment.

The importance of recognizing and treating the underlying pathology, as well as the bar formation, has been clearly defined. This is of exceptional importance, as to merely remove a median bar and leave untouched the underlying pathology would frequently result in the bar reforming and no permanent results from the treatment. In many of these cases at the time of examination there may be considerable acute infection both in the bladder, deep urethra, prostate and vesicles, and here I believe it very important to clear up the acute condition before attacking the fibrotic neck or bar formation. Operative procedures should be reserved for those cases of quiescent fibrosis in which there is definite subjective and objective evidence of obstruction. An acute or subacute condition should be controlled and eliminated as far as possible before these measures are instituted. In quite a few cases we find then that they are not necessary.

There have been so many new instruments brought forward in the last few years to deal with this condition that it is quite confusing to keep track of them all. Every year several new ones are introduced, and we have quite a variety of methods used; the simple punch or cold knife cutting operation, the cautery cutting operation, and high frequency electric currents, either destroying by coagulation or cutting with the radio knife. Each man that has brought forward a method or instrument presents many reasons why his is the best, but most of these, in the hands of men trained to use them, can be safely and successfully used. I believe one should select one method and instrument and become thoroughly acquainted with its use and not change from one instrument to another, making an effort to try them all. I had the opportunity of being associated with Dr. John Caulk of St. Louis at the time he developed and brought forward his cautery punch. I have used this instrument ever since it was introduced and have not attempted to use any other. I have been very pleased with the results obtained and have never had any severe complications. On no occasion has it been necessary to open the bladder to control hemorrhage. This, however, as Dr. Spitzer stated, is probably the chief complication of punch operations. If the instrument is working properly and the tissue cleanly cut through or burned through there is not near so much danger of hemorrhage as when the tissue is not properly cut or destroyed. In some instances a dull instrument will tear the mucous membrane and result in marked hemorrhage where otherwise this probably would not occur. The cautery punch, burning through tissue too quickly, causing the instrument to act more like a knife than a cautery, may also tend to produce hemorrhage. The blade should be slowly passed through the tissues, cauterizing and sealing the blood vessels as it goes. With the use of the cautery instrument it is possible to cauterize the raw surface, thereby sealing the small blood vessels and making hemorrhage much less likely. Another cause for hemorrhage in inexperienced hands is cutting through tissue other than the bar formation, which has been done not infrequently.

The use of catheter drainage following bar excision is imperative, as Dr. Spitzer has stated, and here a large caliber, soft rubber catheter with numerous eyes should be used. This is one point that Dr. Caulk emphasizes in his technique; he uses a 30 to 32 French caliber, soft rubber catheter with three to four large eyes opening into the bladder. This catheter is allowed to remain open and drains into a basin placed between the patient's legs. He states that since adopting this measure he has never had a serious hemorrhage. The large catheter tends to make pressure on the excised area and clot formation is not encouraged due to constant drainage.

I visited Dr. Caulk's clinic in May of this year and had the pleasure of seeing him operate upon several adenomatous prostates with his cautery punch instrument. He is very enthusiastic about the possibilities in these cases and stated that during the last year he had eliminated over 50 per cent of his prostatectomies by the use of the punch. He removes several sections of tissue at each sitting and in some cases has repeated the procedure as many as eight or ten times on the same patient. Here, of course, the danger of hemorrhage is much greater than in dealing with pure bladder neck fibrosis, as the tissues are much more vascular, but he does not seem to fear this complication at all and states that he has no severe hemorrhages. He adopts a procedure as I have described above by using a large, many eyed catheter and allowing it to drain freely into a vessel between the patient's thighs.

It will be extremely interesting to watch the progress of these minor operative measures in dealing with prostatic hypertrophy and see the progress that is made in the next few years.

Harold T. Low (Pueblo): I have always enjoyed Dr. Spitzer's papers very much. He goes into the pathology to a degree that many of us are unable to do. He has described to you the local and the systemic pathology resulting from vesical neck obstruction. I am fully aware that my discussion may meet with some disapproval, but any criticism based on historical data and not personal experience I feel is not to be considered. I would just like to show a few slides in a moment to demonstrate the method as used by Clyde Collings of New York in transurethral resection of vesical neck median bars. In 1920, Collins perfected the radio therm knife. It is an ordinary high frequency apparatus stepped up from 100,000 oscillation rate to 1,400,000 oscillation rate. The effect of this current is a cutting rather than that of a coagulation current. As a result there is little sloughing, and consequently very little secondary hemorrhage to be feared. This is very well demonstrated if you will step out to the booth of Geo. Berbert Surgical Supply Company. They have such an instrument, and it will show definitely the two currents, one coagulating with the destruction of tissue, and the other the cutting of tissue.

I have used this current by means of a McCarthy loop through the panendoscope not only to remove median bars, but in beginning middle bars. In some cases where we are unable to satisfactorily prepare a patient for a prostatectomy this method has been used resecting enough of the gland to materially lessen the residual urine.

(Here slides were shown demonstrating the different types of bladder neck obstruction and the Collings technique of resection.)

AGRANULOCYTOSIS: WITH REPORT OF A CASE IN A CHILD*

EMANUAL FRIEDMAN, M.D., AND TINSLEY SMITH, JR., M.D.
DENVER

In 1922 Schultz[1] described an acute infectious process regarded by him as a clinical entity, which he termed "agranulocytosis" because of the dominant hematologic finding. His observations were based upon six females of middle age taken acutely ill with high fever, prostration, extreme reduction in leukocytes especially of the neutrophilic variety, ulceration in mouth, jaundice, absence of hemorrhage, with no appreciable reduction in erythrocytes, hemoglobin and platelet count, uniformly terminating in death within three to four days, commonly from pneumonia. Friedemann designates this syndrome as "agranulocytic angina," and it is also frequently referred to as "acute sepsis with leukopenia."

The condition had been reported by Brown[2] as far back as 1902 under the title of "acute primary infectious pharyngitis with extreme leukopenia." The subject of the communication concerned a woman aged 29, who displayed in the course of an acute febrile infection, angina, moderate anemia, a terminal leukocytic count of only 260 with fifteen polynuclears and a fatal termination on the seventh day of her illness.

The last five or six years have witnessed a steady increase in the number of case reports, emanating chiefly from German and American sources. By 1927 Kastlin found the number to reach forty-three and Rosenthal[3] in his 1930 publication found over 180 cases recorded.

Theories Concerning the Nature and Origin of the Infection

Considerable controversy has been aroused concerning the status of this condition. An admirable exposition of this phase of the subject is embodied in the article written by Roberts and Kracke[4]. Schultz and Reye believe that there is ample justification for considering the infection an entity because of the uniformity of symptoms and characteristic pathologic findings. In agreement with this belief are[4] Roch and Mozer, Jacobovitz, Baltzer, Hunter, Gundrum, Leon, and others. On the other hand Blumer[6], Rose and Houser[5], Bigler and Brenneman[1] and a host of other competent observers challenge the correctness of this view and look upon agranulocytosis merely as an episode in the course of a number of readily recognized infections, blood dyscrasias, and as resulting from the application of certain chemical or radioactive agents.

Kastlin[7] on the basis of an analysis of seventy-eight cases including two personal observations advances the following possibilities: (a) The condition may represent an entity. (b) It may result from bone marrow injury initiated by specific poisons rendering the organism defenseless against secondary invaders, which in turn produce most of the phenomena observed. Concurring in this belief are Licht, Hartman, Skiles and Kastlin. (c) It may occur in individuals with a pre-existing hypoplasia of the granulo-cytogenic mechanism. Among advocates of this theory are Dahlen and Wahlgren. Harkins'[8] observations tend to strengthen this hypothesis. His review includes six patients with a tendency to a pronounced increase in lymphocytes, however unaccompanied by leukopenia, observed at variable periods before the onset of agranulocytosis. The history of recurrent attacks of agranulocytosis noted in a child by Rutledge and associates lends additional weight to this assumption. On the other hand, Schultz[9] does not subscribe to the belief that the predisposition is hereditary, and in this he is upheld by a number of observers who on one or several occasions found the blood picture unaltered before the onset of this infection.

Nowhere do I find the case against its acceptance as an entity presented more convincingly than by Rose and Houser[5]. They contend that: (a) A marked leukopenia and granuloeytopenia are not rare findings in infections of various kinds, notably sepsis and lobar pneumonia. (b) Leukopenia,

*Read before the Sixty-first Annual Session of the Colorado State Medical Society at Colorado Springs, Sept. 16, 1931.

without a striking decrease in neutrophiles, is met with in chronic intoxications due to lead, arsenic, thorium, benzene, mercury, and also following roentgen ray exposure; in diseases of the blood or blood-forming organs as pernicious anemia, aplastic anemia, aleukemic leukemia; in certain infections especially dengue, kala-azar, measles, influenza, malaria, typhoid, fulminant septicemia and lobar pneumonia. (c) Oral necrosis may be a concomitant of aplastic anemia, pernicious anemia, acute leukemia, hemorrhagic purpura, arsenical poisoning, cachectic states, and especially septicemia. (d) A wide variety of organisms have been isolated from the lesions as well as the bloodstream. Lastly, the condition has not yet been experimentally reproduced.

Harkins[8] found at least eight cases of agranulocytosis allegedly due to the therapeutic application of arsenic in syphilis and others have witnessed its development following the administration of arsenical in Vincent's angina.

Such a case is reported in detail by Foster[10]. Sixteen hours following the seventh intravenous injection of neo-arsphenamin, his thirty-one-year-old patient developed fever, prostration, swollen gums, oral necrosis, and the characteristic blood picture. Recovery followed the use of sodium thiosulphate. The same author refers to the experience of Wheelihan who in 1928 witnessed the supervention of this syndrome traced to the administration of Fowler's solution.

The literature discloses instances of this infection occurring shortly after the extraction of teeth. This procedure appeared to play a decisive role in a child of six, reported by Dwyer and Helwig[8], who suffered a recurrence of agranulocytic angina immediately after this operation, with death in twelve days. Hill also observed three instances of mandibular infection secondary to teeth extraction with two resulting in a leukemic picture and one followed by an agranulocytic reaction.

Friedemann[11] considers it as an expression of endocrine imbalance and Mouzon and Roch and Mozer look upon it as closely allied to the acute leukemias. Still others regard it as a terminal reaction in Hodgkin's disease, septicemias, etc.

Epidemiology

Our conception of agranulocytosis as originally defined by Werner has undergone considerable revision. The syndrome while most frequently encountered in middle aged women, is by no means limited to this group. The first case described in the male is that of Rotter[7] in 1925. In 1930 Rosenthal[3] found twenty-four examples in the male and comments on its rarity under twenty. It is considered quite uncommon in children. As recently as 1928, Dwyer and Helwig could find but two case reports in children other than their own; to-wit, that of Schwartz seen in 1904 and that of Bantz in 1925. However in the last two or three years it has become increasingly evident that the condition is not rare during childhood.

Genesis

In a recent publication, Roberts and Kracke[4] present a concise exposition of the evolution of this condition with emphasis on the essential underlying physiologic processes. The red marrow produces the platelets erythrocytes and granulocytes. The life cycle of the granulocyte is from three to five days. It follows that if the production of these cells is suspended for five days they would completely disappear; it is well established that their disappearance from the blood stream for a period of seven days is incompatible with life, because the granulocytes constitute the chief barrier to bacterial invasion and multiplication.

In agranulocytic angina the neutrophiles disappear or are markedly reduced in number as a result of a primary pathologic process of the bone marrow affecting chiefly its granulocytogenic function. In consequence the granulocytes disappear from the circulating blood, followed shortly by clinical manifestations of what is known as "agranulocytic angina." That this is the probable sequence of events is borne out by the observations of Roberts and Kracke. At autopsy while normoblasts and megakaryocytes are present in the bone marrow, the granulocytes have entirely or almost completely dis-

appeared. The marrow is found in a liquid state and varies from a red to a straw color. In three cases investigated, the marrow removed from the sternum at the height of the infection showed a decrease in the granulocytic elements—tending to prove that their disappearance is not a terminal phenomenon.

It is worth noting that Beatrice Lovett[12], in 1924, brought about an experimental decrease in neutrophiles by the injection of B. pyocyaneus; at autopsy disintegration of neutrophiles was found.

These cogent statements notwithstanding, Blumer and many others insist that in the present state of knowledge it would be an unwarranted assumption to regard agranulocytosis as a primary infection.

Pathology

The pathologic findings are essentially those of a bacteremia. Nearly all organs, notably the bone marrow, participate in the infectious process. In twenty-seven out of thirty-three autopsies studied by Kastlin, this structure was found red and fatty with areas of hemorrhage and necrosis. Microscopic examination reveals a decrease or complete absence of granular cells rendering the lymphocytes conspicuous by contrast. The reticulo-endothelial cells are increased and the erythrocytes but little affected. The next most important finding is the widespread necrosis of arterioles and veins affecting various organs, with hyalinization of their contents. This is especially striking in areas of subcutaneous necrosis. Another noteworthy observation is the diffuse occurrence of small patches of necrosis in internal organs, without cellular reaction, and necrotic areas in the pharynx, on the tongue, larynx, etc.

Collections of lymphoid tissue are common in the different organs. Reticuloendothelial cells are increased in the spleen, lymph nodes, bone-marrow, and circulating blood. Subpleural, subpericardial, and subendocardial hemorrhages are frequent. The lungs are hyperemic and often the seat of broncho-pneumonia. Erosions and hemorrhages in the stomach are encountered. The liver and spleen are usually enlarged. The peripheral and deep seated glands are also generally hyperplastic, as are also the intestinal lymph follicles and mesenteric glands. The kidneys show cloudy swelling with degeneration of the tubular epithelium.

Smears from the buccal lesions in the great majority show Vincent's spirilla and fusiform bacilli, in addition to hemolytic streptococci, colon bacilli, B. pyocyaneus, etc.

Symptoms

The onset is usually abrupt with a continuous fever ranging from 101 to 105, chills, malaise, and profound prostration. Coma frequently sets in before death which occurs in from four to eight days, commonly from pneumonia. In those pursuing a more favorable course, there is manifest a gradual abatement in symptoms after the lapse of a week or two, followed by a slow convalescence which is complete in about two or three weeks.

The onset was acute in character in twenty-eight of Kastlin's series, and insidious in fifteen following a protracted period of indisposition. In exceptional cases the duration of the attack varied from two to forty-two days. Angina is a common complaint, though the Germans aver, according to Jaffe[13], that it is by no means an essential accompaniment of agranulocytosis. Rosenthal[3] found one of his patients free from this symptom. Tenderness in the region of the gall bladder and epigastrium is occasionally elicited. The patient appears alarmingly ill, is markedly prostrated, with face and neck edematous, cervical glands considerably enlarged though usually not painful, and the voice muffled, as is common in severe throat infections.

The oral cavity is involved in all cases showing areas of ulceration and necrosis, occasionally progressing to the stage of gangrene. The lesions present overhanging edges with frequently no surrounding inflammatory zone. These are most commonly located on the tonsils, pharynx, gums, tongue, larynx, and oesophagus. A membrane was noted in twenty-five of the forty-three cases reviewed by Kastlin[7] and was not infrequently attached to a non-ulcerated area. The lesions on the tonsils varied in

appearance from that presented by follicular tonsillitis to gangrene. Rarely, the mouth and throat may escape invasion.

Extra-oral ulcerations may involve the duodenum, anus, rectum, and vagina. Both Buck and Rosenthal have discovered such lesions limited to the rectum. Kastlin found bleeding from mucous membranes in only two instances. Rosenthal also remarks upon the rarity of hemorrhages from ulcerated areas.

The Germans[4] refer to the development of cutaneous lesions similar to those commonly observed on the mucous membranes. Rose and Houser's[5] patient exhibited pinkish nodules about the size of a pea involving the skin. Jaundice was observed as a late phenomenon in about 58 per cent of the cases reviewed by Rose and Houser. Cutaneous hemorrhages are observed with a fair degree of frequency—eight times in Kastlin's series. They are usually petechial in character. Schultz in his later publication commented upon the not infrequent occurrence of herpes on nose and lips.

Recurrent attacks are not rare and the general impression prevails that they are usually fatal. Recurrence six weeks after the primary attack was encountered by Roberts and Kracke in a woman of seventy-two with a fatal issue. Dwyer and Helwig[12] reported a similar experience in 1928 concerning a child of six who succumbed to a second invasion, apparently precipitated by a tooth extraction, with three weeks intervening between attacks.

Blood Findings

The blood culture in a series of seventy-five cases analyzed by Rosenthal[3] was positive twenty-eight times. The most common organisms found were the streptococcus in seven, pneumococcus in seven, staphylococcus in five, and a few revealed more than one variety. In his own series, four out of seven showed a positive blood-culture. On the other hand Rose and Houser[5] found the blood sterile in the great majority of Kastlin's and their own patients.

The outstanding feature of the syndrome is the extreme depression of leukocytes which becomes more striking as the infection advances. The count has repeatedly been observed to drop to as low a level as 200 and on occasions even to 100. Kastlin found leukocytic decrease in forty-one out of forty-three cases, with an average of 1,200 and the lowest figure at 100. Two patients displayed an initial rise in leukocytes with subsequent leukopenia. Equally startling is the extraordinary reduction in the neutrophiles, frequently culminating in their complete disappearance. A relative lymphocytosis prevails with endothelial cells ranging from 4 to 8 per cent. The platelet count is usually but slightly affected; Kastlin found it normal in twenty out of twenty-seven recorded instances. The red cells and hemoglobin are but little influenced by the process. In Kastlin's series the erythrocytes were normal in twenty-five patients, not recorded in ten, and eight showed changes similar to those observed in secondary anemia. The bleeding time is increased and coagulation time unaffected.

One gains the impression from a survey of the literature that many cases reported as agranulocytosis in childhood do not warrant their inclusion in this category. A striking case in point is the series recorded by Bigler and Brenneman[1] under the caption of "sepsis with leukopenia (agranulocytosis)." A perusal of the article discloses so many conspicuous deviations from the commonly accepted type that it appears unjustifiable to classify them among the agranulocytoses. The findings suggest that they may properly be regarded as examples of aplastic anemia or thrombopenic purpura—a view likewise expressed by the authors. The ten children comprising the series displayed a gradual onset, a markedly protracted course (four to five months), the invariable presence of cutaneous hemorrhages, the absence of oral necrosis, and a notable depression in red cells, hemoglobin (all below 30 per cent), and platelets.

The same criticism may be directed against one of the two cases reported by Jacobsen[14] as agranulocytosis. The low platelet count (34,000), the marked reduction in erythrocytes (2,070,000), the low hemoglobin estimate (32 per cent), and the hyperplasia of

the bone-marrow with numerous myelocytes constitute findings wholly inconsistent with the stated diagnosis.

Diagnosis

The significant diagnostic criteria are the necrotic lesions in the mouth, extreme leukopenia and an equally remarkable depression of granulocytes, without evidence of blood regeneration and associated with only moderate anemia and slight if any reduction in platelets.

In the interest of greater diagnostic accuracy, it may be timely to recall at this juncture that necrotic lesions may occur in aplastic anemia, pernicious anemia, acute leukemia, hemorrhagic purpura, cachexia, arsenical poisoning, and in septicemia. Without agranulocytosis, these lesions may be encountered in fulminating diphtheria, Vincent's angina, and monocytic angina. Leukopenia may be observed in the conditions above enumerated, and it is also known to occur in benzene and arsenic poisoning, in connection with repeated Roentgen-ray exposure, certain acute infections as typhoid, measles, influenza, malaria, mumps, etc., and occasionally in Hodgkins' disease. Granulocytopenia may accompany any of the aforementioned conditions, particularly in their terminal stages, an observation emphatically reiterated by Blumer[4] and others.

During the early stages of the infection a diagnosis of diphtheria may not appear unreasonable, as is attested by the experience of Dwyer and Helwig[12] and by Bantz. The same thought is emphasized by Hueper[11] who found this to be the provisional diagnosis in seven cases reviewed. Farley[4] had repeatedly noted the supervention of a syndrome well nigh indistinguishable from agranulocytosis, following the administration of arsphenamine. Foster[10] met with the same experieince in the course of its use in Vincent's angina.

All observers agree that differentiation between agranulocytosis on the one hand and certain types of aleukemic leukemias and sepsis on the other may be extremely difficult if not impossible during life. Blumer cites a number of instances, culled from the literature, of septic states diagnosed intra vitam as agranulocytosis, and agranulocytosis treated as leukemia or sepsis. Indeed, many contend that the syndrome under discussion is merely sepsis, aplastic anemia[3] leukemia, or Hodgkins' disease with unusual terminal manifestations.

To assist in diagnosis, it may prove helpful to recall that:

(a) In aleukemic leukemia immature and abnormal lymphoid forms are present, and in its later stages the blood picture tends to assume the characteristics of leukemia. Autopsy reveals lymphoid infiltration of various organs.

(b) In sepsis the blood culture is uniformly positive, the red cells are more severely affected, thrombopenia is common, and the spleen is more often and more definitely enlarged. Autopsy reveals foci of sepsis and myeloid proliferation in the bone-marrow.

(c) Aplastic anemia is characterized by an extreme degree of anemia with red cells reduced to a million or less with the hemoglobin as low as 10 to 15 per cent, and by a striking reduction in platelets.

Prognosis

The last two or three years have witnessed a wide departure from our earlier concept of agranulocytosis as an infection that invariably terminated in death. Lauter[15] was the first to report a case ending in recovery, and, Kastlin's[7] analysis in 1927 disclosed three recoveries in forty cases reviewed. Rosenthal's[3] experience is still more encouraging, for he encountered only four fatalities among his ten patients, though some of his cases cannot without question be classified as agranulocytosis. Friedmann's[16] experience offers equally good grounds for optimism, for he has four recoveries to his credit. Harkins[8] in an excellent article which appeared in 1931 reports eight cases, with four ending in recovery, including a girl aged two. He succeeded in collecting twenty-four cases of recovery in a series of 150, establishing the mortality rate at approximately 83 per cent.

Bigler and Brenneman in a group comprising ten children failed to save a single patient. It is pertinent to remark that the

greater number included in their series fails to conform with the postulates enunciated by Schultz. A number of patients, including several children, recovered, only to succumb several weeks later to a recurrence of the infection. Harkins[8] encountered in the literature four cases with such unfortunate outcome, with intervals of from three months to two years between attacks, and a normal blood picture in the interim.

Ordway and Gorham[8] believe that when pus can be localized and evacuated a better outlook is assured. Harkins found pus in five of his eight cases and only two of these proved fatal. Rosenthal is of the opinion that a negative blood culture and a white count above 1,000 without complete disappearance of neutrophiles, connote a more favorable prognosis.

Treatment

The therapeutic procedures which have yielded the most encouraging results have been evaluated by A. E. Taussig[17]. In 340 cases studied, the best showing was achieved in patients subjected to irradiation, with only 53 per cent mortality. The transfused group represents 69 per cent death-rate; and the series which had the benefit of arsenical treatment administered in small dosage, fared not quite so well with 77 per cent fatality. Taussig recommends the combined use of irradiation and transfusion as offering the most satisfactory results. At the St. Louis Hospital four out of seven patients received the benefit of such treatment with four recoveries. However two succumbed subsequently to a relapse, following an interval of apparent well-being. Friedemann succeeded in saving four patients, and the successful issue was ascribed to irradiation of the long bones. Harkins, in his review, witnessed recovery in recipients of daily injections of 50 c.c. leukocytic extract. Polyvalent streptococcic serum and diphtheria antitoxin are likewise reputed to have brought about gratifying results.

Case Report

J. E., female, aged two years, was admitted to the pediatric department of the Colorado General Hospital, Nov. 25, 1930, with the complaint of fever petechial eruption, sores in mouth, and a bloody urine. The family, birth, and past history was irrelevant.

Present illness: About the middle of October the patient developed a cough which proved to be pertussis of moderate severity. Nov. 8, while the cough was still in evidence, a marked elevation of temperature set in and two days later a rash appeared on the neck and back with rapid extension over the entire body, diagnosed by the attending physician as measles. Nov. 14, the rash began to fade, general improvement was noted, without, however, any abatement in the severity of the cough. For the relief of obstinate constipation the patient was given, on Nov. 11, calomel in powder form, and cream of tartar to be taken in lemonade. In the course of the week the patient had taken approximately eighteen powders, equivalent as near as could be ascertained to three grains, when medication was suspended and resumed again after an interval of a few days, receiving five or six additional doses.

About Nov. 20, the patient's lips became cracked and soon thereafter ulcerated; the breath became foul, the teeth loose, and the gums began to bleed. The urine became scanty and about five days later assumed a distinctly bloody color, and the same day a petechial eruption appeared on the skin. The patient displayed a disinclination to be handled because of pain.

Examination on admission: The nutrition was well maintained; development, normal; anemia not apparent; sensorium, unclouded. The little patient lay quietly in bed, and had no difficulty in sitting up unassisted. When disturbed she displayed moderate irritability. From time to time she was seized by a paroxysmal cough, unaccompanied by the characteristic whoop.

Head, neck, eyes, ears, and nose were negative. Both cheeks appeared somewhat swollen. On the left side of the chin just below the lower lip an edematous and discolored area about the size of a quarter, resembling a bruise, was seen. Both lips were cracked and bleeding. The breath was foul. The buccal cavity on the right side showed

a large sloughing area about one-half by one and one-half inches, covered with a film of necrotic tissue. Another necrotic area somewhat smaller in size could be seen on the inside of the left cheek. The lower gum in front was discolored and appeared dark red in color. The tongue was heavily furred. The tonsils and pharynx, visualized with some difficulty because of resistance offered to inspection, were found normal. A slight degree of anterior cervical adenopathy was present.

The thorax, heart and lungs were negative. The abdomen presented no untoward findings. The spleen and liver were not palpable. Genitalia were normal. The right shoulder showed considerable swelling, without undue limitation of motion, and without tenderness. Numerous tiny purpuric spots, a few almost one cm. in diameter were distributed over the body, most abundantly upon the extremities. The nervous system showed no abnormalities. The admission temperature was 104, pulse 150, and respiration 32.

Because of the buccal lesions, a tentative diagnosis of agranulocytic angina was made. Mercurial stomatitis was suggested by the history and the discoloration of the gums. Acute leukemia, purpura, and sepsis claimed attention by reason of the petechial eruption.

Laboratory report: The urine was frankly bloody, with four plus albumen, acetone, pus cells, and an abundance of red cells. The hemoglobin was reduced to 50 per cent, with 3,160,000 erythrocytes, and 4,050 leukocytes. Of 200 white cells counted, only 1 per cent was of the neutrophilic variety, 95.5 per cent small lymphocytes, and 3.5 per cent endothelials — without any abnormal erythroeytes or white cells. Roentgenogram of the right shoulder showed normal appearance of the bony structure.

Course: The leukopenia and agranulocytosis were regarded as confirmatory of the preliminary diagnosis. The child was transfused the day following admission, with 150 c.c. of the father's blood given by the indirect method. This was followed by a severe reaction characterized by a protracted chill with a temperature rise to 108, controlled by sponging and cool enemas. Numerous crops of petechiae appeared in the course of the following two days, and slight vaginal bleeding set in. The oral condition remained unchanged. The purpuric spot on the chin became larger and darker. Rather persistent and active oozing, checked with difficulty, occurred at the site of puncture of the finger. Her sensorium was clear, her general state unaltered. She refused nearly everything offered. Her sleep was restless. She was in no apparent pain.

Nov. 27. Her condition was unchanged. She sat up now and again. Cough at times was disturbing. The spleen was not palpable.

Nov. 28. One hundred and fifty c.c. of father's blood was injected into the vein. The bleeding from the vagina had become profuse. The lesion on the chin had increased in size and had become more indurated. New crops of purpura were evident.

Nov. 29. The child was more restless and refused nourishment. Bleeding from the nose had set in, and the vaginal hemorrhage continued. The buccal lesions had not progressed. The pharynx was not involved. Heart and lungs were negative, and the spleen was not hypertrophied. The superficial glands were not enlarged. Her restlessness had increased and her general condition had become noticeably and distinctly worse. She was given forty c.c. of her father's blood into the buttocks. The temperature ranged from 100½ to 103.

Nov. 30. The bleeding continued from kidneys, nose and vagina. The patient grew weaker, became stuporous, and death supervened at 6:30 a. m.

Permission for autopsy was not granted.

Additional laboratory data: Nov. 29, the white count showed 2,600 cells; only thirty-seven cells could be counted and of these one was a polynuclear and thirty-six were classed as small lymphoeytes. The platelets numbered 320,000. The coagulation time was six minutes and bleeding time seven and one-half minutes. Smears from the lesions in the mouth showed a few fusiform bacilli, Gram-negative and Gram-positive cocci, and few Gram-negative rods. A culture from

the lesions revealed hemolytie streptococci and staphylococci. The blood culture was negative. Subsequent urine examinations showed approximately the findings present upon admission. Tests for the presence of mercury proved negative.

The treatment institnted was symptomatic and supportive. In addition to the several transfusions, sodinm thiosulphate was given to counteract the possibly ill effects from retained mercury. Sodium perborate in paste form was applied to the buccal lesions. Fibrogen and other coagulants were used. The x-ray was not utilized.

Discussion

I find no valid excuse for disputing the correctness of the diagnosis of agranulocytic angina in the face of outstanding symptoms and signs of that malady: the fever, prostration, oral necrosis, petechiae and ecchymoses, mucous membrane hemorrhages, leukopenia, agranulocytosis, moderate anemia, normal platelet count, and a fatal issue within a comparatively brief period following the onset. It is regrettable that opportunity for post mortem verification was denied.

Leukemia is excluded by reason of a complete absence of blood changes suggestive of that condition, failure of spleen and glands to enlarge, and because of only a moderate reduction in red cells and hemoglobin.

Aplastic anemia is eliminated as a possibility because of the absence of a striking

Thromboeytopenic purpura is untenable because of the normal platelet count and absence of splenic enlargement.

Sepsis may be ruled out because of a negative blood culture and a normal spleen.

Can we discern an etiologic relationship between the occurrence of agranulocytosis and the antecedent infections of whooping cough and measles? We can only reply that almost any infection, measles with its propensity for leukopenia most emphatically included, is capable of giving rise to agranulocytosis. Or, is it more likely that three or four grains of calomel given to a child already seriously debilitated by these concurrent infections constituted the determining factor in the development of this rare infection? Calomel, in common with other mercurials, possesses potentialities for harm. Six grains of this drng administered in the course of several days has caused the death of a fourteen-year-old boy. And, it is recognized that the mercurials are capable of giving rise to buccal necrosis—a conspicuous feature in agranulocytosis. If in this case calomel was the exciting factor, it is the only instance of such occurrence, as far as I can establish from a rather extensive survey of the literature.

Summary

A girl, two years of age, developed measles during the declining stages of whooping cough. Approximately three grains of calomel were given in the course of seven days for the correction of constipation. One week after the initial dose, fairly typical symptoms and signs of agranulocytic angina appeared. Bleeding into the skin, from the nose, kidneys, and vagina was conspicuous. Marked swelling of the shoulder was noted. Necrosis was limited to the mouth. The pharynx was not involved. The liver and spleen and glands were at no time enlarged. Jaundice was absent. The anemia was moderate in degree, with a normal platelet count, no abnormal red cells, and moderate prolongation of coagulation and bleeding time. The blood culture was negative. Leukopenia and agranulocytosis were striking. Death occurred about ten days after the onset.

Conclusions

A review of the literature confirms the impression that agranulocytic angina is an uncommon condition in childhood. However, more frequent blood examinations will doubtless show that it is not to be regarded as a rare occurrence.

Many cases termed as agranulocytosis are so diagnosed on insufficient evidence.

A correct diagnosis can be reached with reasonable assurance even during life.

The recent literature justifies a more hopeful outlook concerning the fate of the agranulocytic patient.

The syndrome, though probably not a clinical entity, deserves to be considered on a parity with other blood dyscrasias and infections of unknown etiology because of the

distinctive and striking findings, especially in its hematologic aspects, and not merely as an unusual type of such conditions as sepsis, leukemia, aplastic anemia, etc.

Calomel, administered in the seriously debilitated, may conceivably give rise to agranulocytosis.

BIBLIOGRAPHY

[1]Bigler, J. A., and Brenneman, Joseph: Sepsis with Leukopenia (agranulocytosis) in Children. Report of 10 cases, Am. J. Dis. Child. 40: 515-532 (Sept.), 1930.

[2]Brown, Philip K.: A Fatal Case of Acute Primary Infectious Pharyngitis with Extreme Leukopenia, Am. Med. 3: 649-651, 1902.

[3]Rosenthal, Nathan: Observations on Agranulocytosis, New York State J. M. (June 15), 1930.

[4]Roberts, S. R., and Kracke, R. R.: Agranulocytosis. Report of a Case, J. A. M. A. 95: 780-787 (Sept. 13), 1930.

[5]Rose, E., and Houser, Karl M.: The Identity of So-called Agranulocytic Angina, Report of a Case. Arch. Int. Med. 43: 533-548, 1929.

[6]Blumer, George: Agranulocytic Blood Picture in Conditions other than Angina, Am. J. M. Sc. 179: 11-16, 1930.

[7]Kastlin, George J.: Agranulocytic Angina, Am. J. M. Sc. 173: 799-813, 1927.

[8]Harkins, H. N.: Granulocytopenia and Agranulocytic Angina, with Recovery. Report of Eight Cases with Four Recoveries, Arch. Int. Med. 47: 408-420 (March), 1931.

[9]Schultz, Werner: Neuere Erfahrungen uber Argranulozytose, Munch. Med. Woch, 75: No. 39: 1667-1669, July-Dec.

[10]Foster, J. M. Jr.: Agranulocytic Angina Following the Administration of Neo-arsphenamine. Report of a case with recovery from use of Sodium Thiosulphate, Colorado Medicine. 27: 388-393, 1930.

[11]Hueper, Wm. C.: Agranulocytosis (Schultz), and the Agranulocytic Symptom-Complex, Arch. Int. Med. 42: 893-900, 1928.

[12]Helwig, F. C.: Agranulocytic Angina, Hugh L. Dwyer, Am. J. Dis. Child. 35: 1041-1047, 1928.

[13]Jaffe, R. H.: Agranulozytarer Symptom-Komplex bei Hodgkinschem Lymphogranulom, Munch. Med. Woch. Bd. 73, July-Dec., 1926.

[14]Jacobsen, A. W.: Agranulocytosis, Canad. M. A. J. 22: 814-818, 1930.

[15]Lauter, Dr.: Zur Frage der mit Agranulozytose Embergebenden Falle von Septischer Angina, Med. Klin. 38: 1324-1326, 1924.

[16]Wyatt, T. C.: Agranulocytic Angina. Report of a case with recovery, New England J. Med. 199: 525-527, 1928.

[17]Taussig, Albert E.: Roentgen Treatment of Agranulocytosis. Society Proceedings Abs. in J. A. M. A. 96: 2151 (June 20), 1931.

DISCUSSION

Elmer L. Timmons (Colorado Springs): It has been my pleasure to hear Dr. Friedman discuss many medical cases within the last ten years. So far I have been unable to add anything of value after he has finished.

Agranulocytic angina is a form of septic sore throat or septic pharyngitis, sometimes named acute ulcerative pharyngitis, gangrenous pharyngitis, erysipelas of the throat, and sometimes Ludwig's angina. The course of this disease varies from panpharyngitis with exudate and edema to deep and destructive ulcerations involving the uvula, faucial pillars and tonsils, with the general symptoms of sepsis, fever, chills, prostration, delirium, diaphoresis, and leucocytosis. The streptococcus pyogenes is claimed by some to be the causative organism.

There are many opinions regarding its cause: some saying Vincent's angina, others complications of long protracted illness, others poisoning by chemicals, and others think it to be a new disease with no definite entity. The course of disease is very acute with death occurring not uncommonly within two or three days after onset and resulting from septicemia.

The blood pictures show marked leucopenia, something of which I am personally not familiar. The white blood count has been an interesting and in the opinion of many a more or less diagnostic factor, being very low in all cases and gradually decreasing to nothing if the disease proves fatal, with the granulocytes becoming less and less and lymphocytes relatively increasing. In a few cases reported to have recovered the white count returned gradually to normal. These cases also showed early in their course an increase in the large monocytes up to 15 and 20 per cent, also a Schilling index in the myelocytes. Hence the value of laboratory diagnosis and prognosis.

No definite causative agency has yet been proved. With the high mortality it is important that we have some therapeutic agent of proved value. The treatment by transfusions and roentgen therapy does not seem to have affected the blood elements sufficiently. Hence such men as Doan, Warren, and Ames, have claimed that the nucleotides, given intravenously increased the polymorphonuclear cells. Adenine sulphate ½ gram in 25 c.c. of saline daily, together with transfusions, seem to be a good treatment in four cases reported by Reznikoff.

John W. Amesse, M.D. (Denver): I am especially interested in this case, not only from the history, being the first one reported in this territory, but also from the fact that this case was referred to me by Dr. Albers, of West Portal, in the infectious stage of whooping cough and just getting over measles, so that when it came to Denver I was unable to take that child to the hospital. The Denver General refused to take it, the Presbyterian Hospital refused to take it, and then Dr. East was kind enough to take it into the Colorado General Hospital, where it fell under the critical study of Dr. Friedman on service at that time, and enlisted his entire sympathy and study, as all those cases do. It seems to me in going over this case with Dr. Friedman, the child was just getting over measles, poisoned with calomel, and you might explain it on the basis of sepsis. We know there is a profound leukemia, we know there is a relative increase in the polymorphonuclear cells, and I was wondering in this case if this child's vitality had not become lowered to a point where this leukemia could not have continued and gone on and thus evidently produced death from sepsis. It is an extremely interesting case, and I am sure we can all look back to our early days of practice with those cases and perhaps now be able to recognize one, because there is no new disease. We have simply overlooked this disease, and it is to the credit of Dr. Friedman that he has recognized this extremely rare condition.

J. N. Hall (Denver): I want to speak very briefly on this. I think so far as I know I made a diagnosis on the first case of this some half a dozen years ago, a case in St. Luke's Hospital.

These cases illustrate one trouble about diseases of the throat that I have seen in still another disease: namely, that where there is much trouble, doctors are apt to focus their attention on the local affairs in the throat to the exclusion of the general condition. I learned that from Professor Robert Levy a long time ago. I saw thirty years ago an ulceration of the throat that would not heal, and was causing constant pain. I had never seen or heard of anything of the kind, and Levy finally told me that the man had a herpes of the of 150 or possibly less in some of these cases, and glosso-pharyngeal nerve. He had been examined time and again, and pneumococci had been found. The pneumococci were merely growth on the damaged tissue, as you might put it; and shortly afterwards I went to Pueblo to see a case sick a year, and he had precisely the same thing, and with the knowledge that Dr. Levy gave me I was enabled to make the diagnosis. These have no direct bearing except to show that in cases of agranulocytosis attention is so apt to be focused on the trouble in the throat and one does not get the idea of the general disease. In one case that I saw, five different throat men had examined the man, and each one had given a good report on the local condition, but no one had associated that with the newly known fact at that time: namely, that the granulocytes had decreased, as has been mentioned in this case. These are troublesome cases. That one went on to a fatal end in a few days. I saw another one shortly afterwards, fatal, but here within a couple of years I have seen a third. That was treated with x-ray much on the order of treating leukemia. That one went on to recovery. I did not suppose that any would recover, but we are learning that a few of them do.

E. R. Mugrage (Denver): I have been very much interested in this subject from the hematological standpoint, and I feel that Dr. Friedman has presented the subject exceedingly well. It has been my privilege to see approximately six cases of this condition, from the laboratory standpoint, and to follow some of the cases through clinically. In fact, at the present time we have one case under observation in which we have been following the blood picture. The condition of agranulocytosis I feel is probably a common one which has been overlooked by many of us, for the simple reason that we have not availed ourselves of laboratory procedures. And as Dr. Friedman brought out, the condition is being recognized more and more, largely because they are bringing laboratory procedures in use in these cases. It is virtually impossible in many of these cases to make a diagnosis of agranulocytosis, except by conjecture, unless we resort to a white cell count and a differential count. I feel that the bone marrow tissue should be brought out more distinctly as a definite body tissue, with an exceedingly important function from the standpoint of immunity. We do not know much of the problems of immunity. We do know that the body cells, both fixed and mobile, have a great deal to do with the protection which we have against various infections. We do know that the bone marrow shows the effects of infections, and we simply see the results of bone marrow activity, or invasion in our blood picture. Dr. Schilling in his work, and we are utilizing that in our Schilling's Index determinations, has shown the effect of bone marrow stimulus in the various conditions. This reaction may result in a marked stimulation of cell activity of the bone marrow, or it may show an inhibition. In the course of agranulocytosis we have virtually a paralysis of the bone marrow activity so far as the white cells are concerned, particularly of the granulocytes, and if we follow these cases we will find that the bone marrow activity gradually decreases, also the presence of the younger and younger, more and more inefficient bone marrow cells, until eventually they are crowded out, and at the same time we will find a decrease in the white cell count, because the granulocytyes are disappearing altogether as a terminal picture. We have seen a leukopenia the terminal picture which we can probably see in many of our terminal cases of sepsis will be of this nature, if we simply use laboratory procedures.

Robert Levy (Denver): Whenever Dr. Hall and I get together we constitute a mutual admiration society. On the part of Dr. Hall, it is well founded, but I can't say the same on my part. You can take that any way you like. As a matter of fact, I do not recall the particular incident Dr. Hall refers to, but I do recall this very definitely, that when Dr. Hall first saw in the Journal of the American Medical Sciences, I think it was, an article on agranulocytosis or agranulocytoic angina, he immediately rushed all over our building to inform all of the men who had not seen that article that there was something new,—I have even seen Dr. Hall take a microscope from the top floor to the bottom floor of the Metropolitan Building to show some of his colleagues something unusual that he had seen in this miscroscope; so he came to my office with this report of agranulocytic angina.

Of course, I became interested, and in looking up the matter I found that in 1907, in addition to Brown whom Dr. Friedman mentioned, their appeared an article on septic disease with "Verküm-merving," of the granular system by Türk. That was the beginning of our study of this particular condition.

What I arose particularly to say was this, that there have been a great many unusual and unexplainable lesions in the throat from time to time, and since the advent of modern bacteriology we have attempted to explain the development of these throat manifestations on the bacteriological findings. I recall a good many years ago when we were still groping very much in the dark, a very unusual throat lesion that I referred for bacteriological study to Dr. Mitchell, who came back with this report that there was a profuse flora of organisms, and that the explanation of the lesion was in defective, or lack of resistance, to these organisms on the part of the tissues. We did not think at that time to look further. Now, this is a point I would like to impress, as Dr. Freidman, I think has emphasized—and, by the way, it is significant that such an excellent paper as we have listened to this morning should be presented to us by Dr. Friedman, when it was a Friedman who first gave the name of agranulocytis angina to this affection—that it is up to the throat men, and I think to every other specialist whose field is limited, to look much further than the local manifestation, and particularly in the present light of our understanding of blood conditions, study the blood picture. Failing in this we frequently fall down.

Now, I should like to say one word as to agranulocytosis, as a disease entity. I have seen cases, in which we have become confused, because there does not seem to be in some of these cases a very clearly, sharply defined line of demarcation between what we believe a symptom complex, rep-

resenting agranulocytosis, and other blood dyscrasiae. Connor, of the Division of Medicine at the Mayo Clinic, says he does not believe this condition was an entity, "but reactions of leucopoietric apparatus to various infections and intoxicants" are borderline conditions, none of which can be distinctly called a disease entity.

Sepsis, intoxications from drugs or otherwise so change the action of the bone marrow that we get these unusual blood pictures, which makes us feel that are not in a position to say that agranulocytosis is a distinct entity.

G. H. Curfman (Salida): I am very much interested in the doctor's paper, and the logical presentation of it. My only purpose in adding a word is to report a case of this rare condition. A retired miner of 50 years of age was operated, about six months prior to the disease that terminated fatally, for acute obstruction of the gall bladder which required removal. I might add that the tonsils had been removed. At the onset of the disease there was a general prostration, sore throat, but nothing more than a redness of the mucous membrane. There was also a pronounced rash. The blood picture on admission showed a lencocyte count of 2,000. On the second day there was a drop, and on the third day the count was 400; on the fourth day, no polymorphonuclear cells could be found at all. Blood transfusions were without avail.

Dr. Freidman (in closing): I am very grateful for the generous discussion which my paper has stimulated. It was really my purpose in presenting this paper, to arouse greater interest in the subject. I myself knew very little about agranulocytosis when I first came across this case. Ludwig's angina is mentioned in connection with differential diagnosis. However even a cursory study of this condition will show a striking difference between agranulocytosis and Ludwig's angina.

Dr. Mugrage is right in stressing the importance of bone marrow in the human economy, especially from the standpoint of infection and immunity. The bone marrow, as you know, is a very vital structure, because it is so intimately concerned with red cell formation. I am glad that Dr. Levy touched on the subject of arsenic as a fairly common cause of agranulocytosis. Especially is this true of neo-arsphenamin, according to the literature, and it might be well for those who are especially engaged in the line of work, which calls for the frequent administration of arsenic in one form or another to examine the patient's blood before the arsenical treatment is started, and perhaps again from time to time in the course of the treatment.

New Officers

Dr. Louis Dublin, vice president and statistician of the Metropolitan Life Insurance Company, is the new president of the American Public Health Association, and Dr. E. L. Bishop, state health officer of Tennessee, has succeeded Dr. W. S. Rankin as chairman of the executive board.

PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Reduction in Our Death Rate

Where tuberculosis killed 1,745 people at the beginning of this century, there were only 647 deaths in 1929. Scarlet fever took a toll of ninety-six children or other persons in 1900 to every nineteen who succumbed to that disease in 1929.

These are some of the signs of progress in the care of human health, the results of some of the great advances in medical science and the application of preventive medicine during comparatively few and recent years.

Now, with more people reaching middle age and advanced years, we find an increase of deaths from diseases pertaining especially to those age groups. In other words, medical science, having succeeded in keeping many more people alive through infancy, youth and the lower reaches of adulthood, now is confronted with the problem of safeguarding those lives in the natural period of declining physical vigor.

Many of those who are at middle age, for instance, are just beginning to feel the effect of a heart lesion incurred in childhood when less was known about the serious later results of certain childhood diseases, and far less about proper treatment. Children were even intentionally exposed to certain diseases so that they might "have them over with" neither doctors nor parents of that day and age recognizing the fact that the foundation was being laid thereby for some serious trouble thirty or forty years later.

So the present record is different, with respect to heart disease, cancer, diabetes, apoplexy and other so-called "degenerative" diseases, than it is with respect to the one previously mentioned. Diseases of the heart, for instance, took 1,374 people per million of population in 1900, as compared with 2,664 in 1929.

One of the great health problems now is cancer. Where that disease or group of diseases caused approximately 640 deaths

per million of population in 1900 it caused 960 in 1929.

Now, it is possible for some persons to look at such figures as those with utter despair and to proclaim loudly the failure of medical science, entirely forgetting the many years of life that have been added to the human span, bringing a constantly larger percentage of our people to the age of susceptibility to cancer, heart disease and the remainder of the group associated with the "wearing out" of the human machine.

On the other hand, it is proper to look back over a century or so, and, noting the diseases that have been practically vanquished in many nations, to conclude that we shall better control and limit, perhaps even eliminate, some of the great present day causes of suffering and death.

In the past one sees the scourges of great epidemics of smallpox and bubonic plague, yellow fever, cholera, typhus, scarlet fever, diphtheria, and other diseases that now are greatly limited. In the future one sees, with knowledge of the study and research now going on throughout the civilized world, similar limitation of the ailments that afflict mankind today.

There is an army of scientists throughout the world continually employed in safeguarding human life, searching for causes and seeking means of prevention and cure. An important division of that army is the Public Health Service of the United States Government. A book might be written about what it has done and constantly is doing to make life longer and more free from pain and suffering.

Surgeon General Cumming.

A Preventive Medical Program

The plan inaugurated by the Health Department of Detroit for participation on the part of the general medical practitioner in public health procedure should receive the careful consideration of every physician who is trying to take his share of responsibility in a preventive medical program. The Detroit plan is described in the Journal of the American Medical Association of August 8, 1931, and in the Journal of the American Public Health Association for July, 1931.

Important accomplishments of the program are:

1. It has secured the protection of 70 per cent of the preschool children and 80 per cent of the school children of Detroit against diphtheria without the use of free clinics.
2. It has reduced diphtheria to one-fourth of the level existing prior to the beginning of the campaign.
3. It has provided for post-graduate conferences of physicians on communicable disease control.
4. It has stimulated parental responsibility for the care of the child. It has provided compensation to physicians for services rendered to the indigent. It has afforded a beginning to make a health center of the office of each physician.
5. It has served as an interesting entering wedge to expand the program of health conservation with medical cooperation into other fields such as tuberculosis and cancer control, periodic physical examination, and the health of mothers and infants.

Diphtheria protection was selected by the Detroit Health Department as the field in which to make a beginning in a program of participation on the part of the medical profession in preventive medical work. Ninety per cent of all the physicians in Detroit, or about 1,100 are enrolled as cooperating physicians in the diphtheria campaign. These physicians have agreed to charge $1.00 for each dose of toxin-antitoxin or toxoid, and also $1.00 for the Schick test, making a total of $4.00 for all those cases in which in the physician's judgment the parents were able to pay for the service.

Definite hours were set aside for this work, and there was nothing in the plan to prevent the physician from charging his usual office fee if the patient appeared at any other time than that specified in the agreement.

When in the physician's judgment the parent was unable or unwilling to pay for the service it was agreed that the Health Department would reimburse the physician at the rate of fifty cents for each treatment,

or a total of $2.50 for complete service to each child.

The program involved a close cooperation between the public, the medical profession, and the Department of Health. It was necessary in order to secure the cooperation of the public, to have many visits made by public health nurses, and nearly 95,000 families were visited. In the Detroit campaign more than $100,000.00 was paid the cooperating physicians, or an average expenditure of about $142.00 per physician. The total amount spent was nearly $250,000 which was less than the cost of medical care for reported diphtheria cases for a single year. Dr. Henry F. Vaughan, Health Officer of Detroit, states that they have gone through their first difficulties and that now it will be merely a matter of taking care of children as they arrive.

The health administrator must balance one activity against another and divert funds to the place where they will be found to be most profitable in the long run. The physicians in Detroit are sincerely endeavoring to cooperate with the Health Department in the reduction of unnecessary sickness. Dr. Vaughan feels that the expense may be most fairly charged against a program to rehabilitate the public with the family physician, to create an attitude whereby the layman will look to the physician as a family counsellor not only in matters of curative, but likewise of preventive medicine.

The Colorado White House Conference

For the purpose of raising the general level of child health and protection in Colorado by coordinating the work of existing state agencies, the first annual Colorado White House Conference will be held in Denver January 14, 15 and 16. Governor William H. Adams has taken the initiative in calling this Conference, as have the Governors of many other states. The State Conferences are being held to carry into fruition the ideas and suggestions brought out at the White House Conference held in Washington, D. C., November 1930, at the call of President Hoover.

Governor Adams has invited 350 state organizations whose purposes are in some way related to child health and protection to send four delegates each to the sessions of the congress. The Governor is also sending invitations to 1,500 individuals who are invited to attend as auditors.

Dr. F. P. Gengenbach has been appointed Director, and is in charge of the details of the Conference, including program and organization.

The president and secretary of each Colorado County Medical Society have been invited to attend as auditors, and Dr. Gengenbach urges as many of these as can do so to accept the invitation.

The program and plans for the four section meetings are in charge of the following chairmen:

Medical Service, Dr. Maurice H. Rees; Public Health Service and Administration, Dr. S. R. McKelvey; Education and Training, Mrs. Inez Johnson Lewis; The Handicapped Child, Miss Eunice Robinson.

Dr. F. J. Kelly of the U. S. Department of Education Chairman of Section 3 of the National White House Conference, will be one of the speakers at the Colorado Conference, appointed by Secretary Ray Lyman Wilbur. Dr. Estelle Ford Warner will give an address as the representative of U. S. Surgeon General, Hugh S. Cumming.

New Medical Profession

I feel that I am justified in making the prophecy that before many decades the role of the physician will have changed to such an extent that his profession will seem an entirely new one as compared with the practice of medicine today. Education in the public schools and universities, and education of the public at large, will have brought the public—at least the intelligent public—to a point where it will be as well-informed along general medical lines as is the physician of today, and diet, hygiene and preventive measures in the treatment of the more common diseases will be matters of general knowledge.

Consequently the chief duty of the physician will be to direct the development of youth and to guide the adult along sound biological lines so that he may safely indulge in the maximum of work and of play.

In other words, the physician will be called upon to study the whole problem of man in relation to his environment. As for disease, the physician will be more concerned with its prevention than with its treatment. In fact, treatment of disease will some day be a confession of failure.

It is the task of the medical scientist to discover and control as far as he can the causes of man's infirmities, and it is along the line of control of the emotions, of the conservation of energy, the preservation of organs, the maintenance of efficiency, and the prolongation of life that we must evolve.

George W. Crile, M. D.
In "Everybody's Health" for December, 1931.

Accidents in the Home

Nearly a third of the fatal accidents that occur in the United States each year arise out of hazards in the home. Among industrial policyholders of the Metropolitan Life Insurance Company, the death rate from domestic injuries in 1925 was 14 per 100,000 and by 1930 it had been reduced only to 13.3. The slight decrease was attributed to a decline in mortality from accidental burns and gas poisoning. On the other hand, fatal accidental falls in the home have increased 40 per cent in the past five years, analysis of the insurance company's figures show. The largest proportion of fatalities from falls result from tripping on stairs. The decline in the number of burns and scalds is believed to reflect the installation of safe heating facilities in homes and the similar decrease in gas poisonings is ascribed to improvements in gas appliances. These three major hazards account for 73 per cent of the home fatalities reported each year, according to this study. J. A. M. A.

New State Health Program

The September 12, 1931, number of the Journal of the American Medical Association has the following important announcement: "The new health program of New York State includes a state-wide system of county health officers (to be required by law); state aid to the extent of half of the cost of such service, to insure that the qualifications of personnel and standards of service meet the requirements of the State Department of Health; a unification of the administration of the present activities under one responsible county department of health, and the development of health programs which embrace all needed community activities for disease prevention."

Dr. Thomas Parran, Jr., formerly with the United States Public Health Service, is the Commissioner of Health of the state of New York.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

Editor: J. J. WARING, M.D.

Marcello Malpighi

Another book, "Dissertatio Epistolica de Bombyce," 1669, by Marcello Malpighi recently presented to the Library by Dr. F. H. McNaught deserves more than passing comment. This "Dissertation on the Silkworm" is really the result of a specific request addressed to Malpighi in 1667 by Oldenburg, Secretary of the newly-formed Royal Society of London, that he should "make the Society acquainted with any observations made in Italy which he might think worthy of recounting, and in particular observations on the silkworm and its economy."

In compliance with this invitation, Malpighi submitted in the form of a letter the results of an exhaustive study of the silkworm in all its various phases from egg to the perfect insect. In 1669, this was published by the Royal Society as the first of many important works of Malpighi which the Royal Society had the honor to publish. Sir Michael Foster calls it "his chief work in comparative anatomy, a model work of supreme excellence." Bound up with this tract on the silkworm is Malpighi's famous work "De formatione pulli in ovo" (1673) which made him according to Garrison "the founder of descriptive or iconographic embryology."

Malpighi (1628-1694), born the very year of the publication of Harvey's great work "De motu cordis", was not only botanist,

embryologist, naturalist, histologist, and biologist, but pathologist and physician as well. He was one of the first of the great scientists to reap the rewards of fruitful research by intelligent and painstaking use of the newly invented compound microscope.

In his most famous work, "De pulmonibus observationes anatomicae," (1661), consisting of two letters to his friend and colleague, Borelli (1608-1679), Malpighi described the vesicular nature of the lung and was the first to see how the minute divisions of the windpipe ended in the dilated air cells. In his second letter which he begins dramatically "I see with my own eyes a certain great thing", he describes for the first time the pulmonary capillaries, a discovery he had announced privately the year previous to Borelli. Up to this time the blood was thought to be poured out into the bed of the lung by the pulmonary artery, much as water is poured out from a hose upon the ground and then gathered up again by the beginning of the pulmonary veins, as a drain carries off surplus water from a field. The existence of microscopic channels connecting the arterial endings with the venous beginnings was not even suspected. Malpighi with the aid of his microscope saw these channels which we now call capillaries.

Note then that in this important work Malpighi not only gave the first description of the capillaries and tells how he actually saw the blood "showered down in minute streams through the arteries" but he also by his accurate study of the anatomy of the lung "for the first time supplied an anatomical basis for the true conception of the respiratory process."

In a little tract "De omento, pinguedine, et adiposis ductibus," (1665), Malpighi writes, "and I myself in the omentum of the hedgehog in a blood vessel which ran from one collection of fat to another, opposite to it, saw globules of fat, of a definite outline, reddish in colour. They presented a likeness to a chaplet of red coral." It would be pleasant to write that it flashed to him immediately that these were blood corpuscles; unfortunately he mistook them for fat cells passing from the fatty tissue into the blood stream. It remained for van Leeuwenhoek, Dutch draper and janitor of Delft, to give in 1674 the most complete and satisfactory description of the red cells.

Malpighi was born at Crevalcuare near Bologna. In 1656 he occupied the chair of medicine at Bologna; in 1658 the chair of Theoretical Medicine (physiology) at Pisa; in 1662 the chair of medicine at Messina; in 1666 he resumed his duties as Professor of Medicine at Bologna. From 1691 until his death from apoplexy in 1694, he was private physician at Rome to Pope Innocent XII. Garrison writes feelingly: "Malpighi was a gentle, fair-minded, sympathetic nature and among the sick, a patient and devoted Asclepiad. The memory of Malpighi is one of 'sweetness and light.'" "He is not only one of medicine's greatest names, but one of its most attractive personalities." His name is today associated with the pyramids of the kidney, the glomerular capillary tuft, the rete mucosum or lower layer of the epidermis and the lymphoid follicles of the spleen.

Other items of Malpighi in the Library: Opera omnia, London, 1687, and Opera posthuma, Venice, 1698.

BOOK REVIEWS

Tables of Food Values. By Alice V. Bradley, B.S., Supervisor and Instructor of Nutrition and Health Education, State Teachers College. Santa Barbara, California. The Manual Arts Press, 1931, pp. 128. Price $2.00.

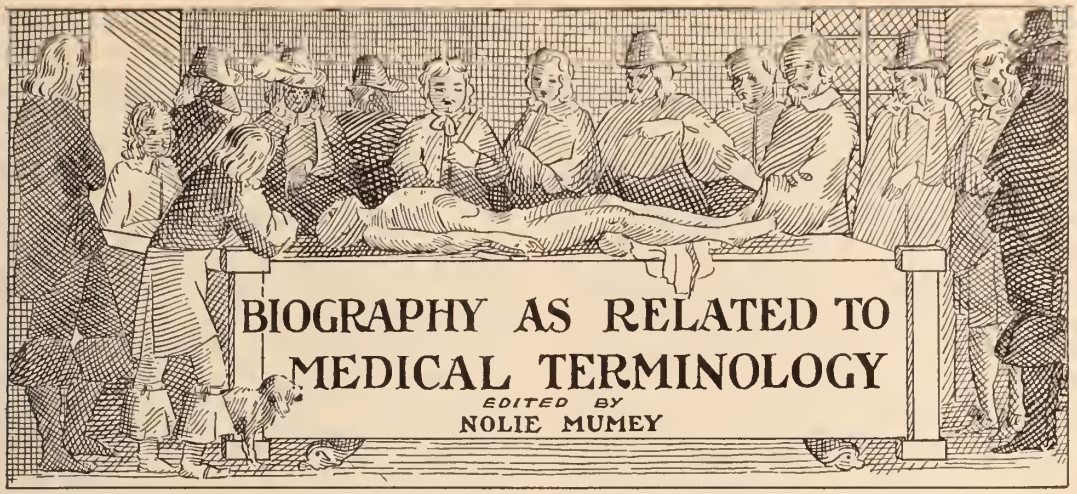
This book is intended to facilitate the calculation of diets by giving a complete set of tables of the several classes of foods showing their respective values in the diet, as far as present-day information permits.

The first half of the book is devoted to a group of tables showing the food value of average servings or common measures. These tables will be especially valuable to persons needing a simple guide in planning or in checking diets in accordance with accepted scientific principles.

The second half of the book contains tables calculated on the basis of 100-gram portions of food. The physician, dietitian, and patients who require a more exacting special diet will find these tables very helpful.

These tables contain the usual fractions of carbohydrate, protein, fat, and ash constituents of each food, and in addition they contain the mineral, vitamin, roughage, and end reaction of each food—making them about as comprehensive as any set of tables that have so far appeared in print.

This book should prove to be of real value and a convenience to all who are engaged in nutrition work. E. V. GAUSS.



BIOGRAPHY AS RELATED TO MEDICAL TERMINOLOGY

EDITED BY
NOLIE MUMEY

LAENNEC

RENE Theophile Hyacinthe Laennec was a remarkable man, an enthusiastic scholar, an original investigator, and a loyal countryman. He was born in Quimper, France, a small town in Lower Brittany which possessed a harbor and was famous as a sardine center.

At the age of six, after the death of his mother, Laennec was sent to Elian, a small town near his native village where he lived with his uncle, Michel Laennec, a parish rector, who cared for the young lad for some time and instilled into his mind the precepts of religion which lasted throughout his life. A year later Laennec was obliged to leave and make his home with another uncle, Guillaume Francois Laennec, a physician who was professor in the faculty of the school of medicine in Nantes. Here he found a second father who carefully guided his early education giving him the best available training. At the age of ten he entered college where he was instructed in science and language. Five years later, at the age of fifteen, in 1795, Laennec began the study of medicine and soon gained the reputation of being an extraordinary scholar.

He continued his studies and made rapid progress. The college did not close during the hectic period of the Civil War, and while a student, Laennec entered the military service and was attached to one of the hospitals in Nantes as "Surgeon of the third class," a position which entailed doing surgical dressings.

The uncle was proud of his young nephew and watched with interest his growing talents. At that time he became worried over Laennec's tendency to compose verse and his attractions for natural history. Money was not plentiful and it was hard to get aid from his father. In 1797 Laennec visited his home in Quimper after nine year's absence. His stepmother insisted that he take up some kind of business, and had his uncle not interceded she would probably have been successful, but he made this appeal to his father: "For God's sake let him come back to me as I sent him to you, good, gentle, and studious; let him pursue in peace a course of study which is good for his health, sufficient for his fortune and honourable for his reputation."

Theophile returned to Nantes making the journey on foot in four and a half days. Many sad hours and worries came to him, but his uncle provided, in his meager way, the necessities such as proper clothing, books, and fees.

In 1800 an insurrection occurred in the Morbihan District, a tract of land which partially lies along the shore of the Bay of Biscay. Laennec accompanied the troops and served in the field with the regular army.

In 1801 he left Nantes with only eight hundred francs in his pocket for Paris where he hoped to complete his studies and obtain his degree. The latter was conferred June 11, 1804.

(To Be Continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

THE MEDICOLEGAL DIGEST

DISTRIBUTION of the Medicolegal Digest to active members of the Colorado State Medical Society began December 26, and should be almost completed by the time this issue of Colorado Medicine reaches its readers.

The Medicolegal Digest has been described by many of the officers of the Society as the most important publication of the organization since the institution twenty-eight years ago of Colorado Medicine. Certainly it is the hope of all the officers and the staff of the Executive Office that the Digest will prove itself amply worth the time, effort, and expense involved in its preparation.

Since each member will receive a copy, it is not necessary here to describe the volume other than to call attention to its special features for the benefit of those whose copies have not yet arrived. It was conceived and designed primarily as a concise compilation of the principal laws and official rules and regulations with which the practicing doctor is in daily contact. Laws and regulations have not been printed in full, but have been briefed, have been "boiled down" to eliminate where possible all items which are not of special interest to physicians. The book was not planned as a substitute for legal advice when such advice becomes necessary, but as a reminder and guide that the doctor may avoid embarrassment or delay in his many necessary dealings with governmental officials.

Secondarily, the Medicolegal Digest carries in addition to its summaries of laws and regulations a number of directories, the most elaborate being a directory of the Colorado State Medical Society membership, which gives not only a list of the members and the county societies to which they belong, but gives also each member's exact address and office telephone number.

The cloth-bound book includes twelve chapters in its ninety-six pages, published for purposes of economy in the same page size as Colorado Medicine. Briefly, the chapters cover the following subjects:

1. The medical practice act, and rules and regulations of the State Board of Medical Examiners.
2. Colorado public health laws, and rules and regulations of the State Board of Health.
3. Federal and state narcotic laws and regulations.
4. Federal and state medicinal liquor and alcohol laws.
5. Malpractice laws, testimony, privileged communications, medical defense, and autopsies.
6. Poor relief, by counties and by the state, and blind benefit.
7. Federal income tax regulations.
8. Miscellaneous laws and regulations, including workmen's compensation, compensation fee schedule, coroner's cases, unclaimed bodies, School of Medicine admission requirements.
9. Directory of federal and state officials with which the doctor has contact, state examining and enforcement boards, city and county health officers and registrars of vital statistics, county clerks, coroners, and county commissioners, etc.
10. Directory of hospitals and sanatoriums in Colorado registered by the American Medical Association.
11. Outline of activities of the Colorado State Medical Society and directory of its officers and committees.
12. Directory of membership of the Colorado State Medical Society.

A total of 1,275 copies of the Medicolegal Digest have been prepared. The Committee on Publication has directed that, due to the expense involved in printing, binding, and distribution, no more than one copy may be given to each member. Remaining copies will be available for sale to physicians who are not members, or to others who may wish them, at ten dollars a copy.

For the benefit of those who have not yet received their copies of the Digest, it may be appropriate to outline the method of distribution which was adopted by the Executive Office.

In Denver all copies are distributed by hand, either personally by the staff of the Executive Office or by messenger boys.

In Colorado Springs, Pueblo, Fort Collins, Greeley, and similar cities a supply of the books sufficient for all members within a reasonable radius of the local secretary's office is sent by express to the secretary of the county society, who may deliver them or ask the members to call for them, at his discretion.

In some of the smaller towns where there are three or more doctors, the necessary number of copies are sent to one of the doctors with the request that he distribute them to his colleagues. Remaining members who are not grouped in towns are sent their copies individually by parcel post.

Except where a member is sent a single copy

by parcel post, a receipt is being taken for each copy as a check on its delivery.

This plan of distribution, approved by the Publication Committee, was chosen as the most economical and as that most likely to assure copies being delivered, without damage.

1931—A RECORD YEAR

THE year 1931 was in many ways a record year for the Colorado State Medical Society. It was this in spite of economic factors that made it the worst year in a generation for most businesses and professions, and unquestionably the worst year financially that a majority of our members have experienced. The Society's success throughout the year is probably due in large part to the growing realization that in depression times even more than in prosperous days organization and united effort are a necessity of the age.

We are reminded of a few of the year's accomplishments from an organization viewpoint merely that we may try to excel in 1932, and may try to bring other features of our organization work to a standard of efficiency worthy of similar mention one year hence.

The 1931 paid membership was the largest in the Society's history.

The 1931 Annual Session was the largest in the history of the organization.

The 1931 average attendance at county society meetings increased.

The 1931 volume of Colorado Medicine was the largest in its history.

Those are four of the principal records that stand out in the Society's favor. It may be timely to point out that in a few instances we are weak, lest we grow carelessly proud.

In 1931 there were more malpractice suits filed against members than in many previous years.

In 1931 a state legislature discarded every proposal of the Society for improved public health laws.

Those are the two main records standing against the Society.

The depression may not be over, but it is waning. It is time to prepare for a return of better times, to perfect our organization for the problems that economic readjustment will present as well as for problems that are ever present.

ANNUAL DUES

EACH County Medical Society secretary is now hoping that the month of January will close with all 1931 members renewed for 1932 by prompt payment of dues. The amount is no larger now than it will be in February. Each County Society and the State Society will appreciate promptness, and promptness will assure a doctor's retention of all membership rights.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Medical society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

* * *

BOULDER COUNTY

Doctors Carbon Gillaspie and O. M. Gilbert reviewed the recent Interstate Post-Graduate Assembly, held at Milwaukee, before the December meeting of the Boulder County Medical Society which was held at the Boulderado Hotel, December 10. Dr. Gillaspie reviewed the surgical and Dr. Gilbert the medical aspects of the Assembly.

Dr. F. G. McCabe was elected to membership. The meeting was preceded by a dinner.

MARGARET L. JOHNSON,
Secretary.

* * *

CROWLEY COUNTY

Dr. J. J. Pattee was the principal speaker before the December meeting of the Crowley County Medical Society held December 8, at Ordway. Dr. Pattee discussed "Acute Inflammation of the Ear" and his paper was followed by a general discussion.

J. A. HIPP,
Secretary.

* * *

DENVER CITY AND COUNTY

So many requests have been received for copies of the paper presented by Dr. J. N. Hall at the last meeting of the historical section that Dr. Nolie Mumey, secretary of the section, has prepared a reprint in book form. These reprints, entitled "Reminiscences of Past Presidents of the Colorado State Medical Society," and containing a photograph and autograph of the author, are substantial and very attractive little volumes of about thirty-seven pages. They will be on sale at the Medical Library for the cost of printing, seventy-five cents, and the edition will be limited to 100 copies.

An especially good attendance viewed the motion pictures taken by Dr. Edward F. Dean on a recent fishing trip across Canada, shown at the first December meeting of the Medical Society of the City and County of Denver, held in the Auditorium of the Capitol Life Insurance Company Building, December 1. In addition to Dr. Dean's pictures, six short surgical movies prepared by the Petrolagar Company and sponsored by the American College of Surgeons were shown.

The Denver Medical Society will be honored on the evening of January 6 with an illustrated lecture presented by Doctor Henry E. Sigerist of the University of Leipzig and Director of the Institute of the History of Medicine. Doctor Sigerist is successor to Professor Karl Sudhoff and has been in the United States since October, 1931, as visiting lecturer at the Johns Hopkins University and other medical schools in the east and middle west. His subject for the address in Denver will be "The Medicine of the Renaissance," and will be offered in the large assembly

room of the Cosmopolitan Hotel at 8:00 p. m. All members are urged to be present.

H. I. BARNARD,
Secretary.

* * *

EL PASO COUNTY

Doctor D. A. Vanderhoof was elected president of the El Paso County Medical Society at its annual meeting, held December 9 in the Colorado Springs Day Nursery. He succeeds Doctor J. A. Sevier. Other officers elected for the year are Dr. T. A. Knowles, vice president; Dr. Z. H. McClanahan, treasurer; Dr. W. A. Campbell, secretary.

W. A. CAMPBELL,
Secretary.

* * *

FREMONT COUNTY

Guest speakers from Colorado Springs gave the scientific program at the regular meeting of the Fremont County Medical Society held November 23 in Florence. Dr. E. L. Timmons gave the first paper entitled "Medical Care of Children." Dr. W. P. McCrossin gave the second paper entitled "Treatment of Sterility in Women." Both papers were very interesting and were discussed by most of the members present.

ARCHIE BEE,
Secretary.

* * *

LARIMER COUNTY

The December meeting of the Larimer County Medical Society, held December 2 at the College Cafeteria, was unusually well attended. Following the dinner there was a short business meeting featured by the election of officers for the year 1932. The following officers were elected: President, M. J. Stewart; Vice President, J. W. Craig; Treasurer, Fred Hartshorn; Secretary, C. E. Honstein; Censor, Charles H. Platz; Delegate, T. C. Taylor; Alternate, W. P. Gasser.

The regular program followed. Dr. Frank B. Stephenson, President-Elect Colorado Medical Society of Denver, gave a talk in which he discussed the importance of the various Medical Societies, County, State and National, their functional relationship in the untiring effort for the advancement of Medical Science.

Mr. Harvey T. Sethman, Executive Secretary of Colorado State Medical Society, followed with a talk in which he described in detail the function of our State office and its various departments.

Both Dr. Stephenson and Mr. Sethman were well acquainted with their subjects and convinced the membership that they have the welfare of the Society at heart.

C. E. HONSTEIN,
Secretary.

* * *

NORTHEAST COLORADO

Dr. E. P. Hummel, Secretary, reviewed a case of Suppurative Epiphysitis at the December meeting of the Northeast Colorado Medical Society held in the Sterling City Hall, December 10. He also read an article on the "Management of the Sick Infant."

* * *

OTERO COUNTY

Mr. Charles H. Haines of Denver, attorney for the State Board of Medical Examiners, was the principal speaker before the December meeting of the Otero County Medical Society held in the Harvey House at La Junta, December 10. Mr. Haines spoke on "Certain Phases of the Medical Practice Act" and answered many questions from the members pertaining to medical law. This unusual type of program was very acceptable to the members who appreciated the opportunity to gain information concerning this law.

O. D. GROSHART,
Secretary.

* * *

PUEBLO COUNTY

An illustrated paper on "The Gastro-Intestinal Tract Radiologically Considered" was given by Dr. W. C. Chaney at the regular meeting of the Pueblo County Medical Society held Tuesday evening, December 15, in the Congress Hotel. The paper was greatly appreciated by all present.

L. L. WARD,
Secretary.

COLORADO NEUROLOGICAL SOCIETY
November 20, 1931

DR. GEORGE S. JOHNSON, PRESIDENT, PRESIDING

A Spinal Cord Tumor Suspect

Case presentation by C. S. Bluemel: A professional man 60 years of age had paresthesia in the lower extremities twenty-four hours after passage of a prostatic dilator. The feet felt as though wrapped in blankets. In an hour this sensation had extended to the hips, and the legs became numb. He could not feel the steps when going up and down stairs. He now drags the right foot and has sensations of cold or burning in the feet, intense aching in the right gluteal region, with paresthesia at the back of the right thigh extending into the perineum and on to the genitalia.

The gait is normal, but he cannot rise on the ball of the right foot. There is marked weakness when attempting this with the left foot, and weakness in dorsal flexion of the right foot. Knee jerks, brisk. Right ankle jerk, absent; left, sluggish. Cremasteric reflexes, absent. Vibratory sensibility, impaired over both tibias. Thermal and tactile sensibility, normal. Right pupil, sluggish and smaller than left.

Protein of spinal fluid, 180 mg. Sugar, 48 mg. Wassermann reaction, negative on blood and spinal fluid. Spinal fluid, cell count 4. A spinal cord tumor was suspected. Thus far no Queckenstedt or injection of lipiodol has been made.

Spina Bifida With Meningomyelocele

Case presentation by Dr. J. R. Jaeger: Dr. J. R. Jaeger presented a case of spina bifida with a myelomeningocele in an infant two weeks old. At birth the babe had a small tumor over the lower lumbar spine about the size of a walnut, which rapidly enlarged until when seen it was the size of a small orange, with a very thin, trans-



Fig. 1. Meningomyelocele Before Operation.



Fig. 2. Same Patient After Operation.

lucent wall. At the apex of the tumor there was an irregular opaque area the size of a dime. There was slight movement of the legs and feet. At operation the spinal cord was found tightly adhered to the center of the meningocele causing it to be sharply angulated. The cord was dissected from the skin and replaced in the spinal canal. Improvement in the movement of the legs and feet was rapid following operation.

Meningeal Endothelioma of the Brain

Case presentation by Dr. J. A. Orbison: Male, 42, farmer, was admitted to Fitzsimons General Hospital on Sept. 23, 1931. Family history and past personal history, negative. Origin of present illness, about three years ago when he bumped the top of his head against a door while working in a smelter. The immediate effects of the trauma were negligible, but in the course of time he noticed a swelling on the head at site of blow which gradually grew in size until it assumed present proportions. In May, 1931, he began to feel tired with development of some weakness in left arm and leg, and difficulty in walking. These symptoms gradually grew worse until Aug. 17, 1931, when he had his first loss of consciousness with convulsive movements in left arm and leg and left side of face. Thereafter, the seizures occurred at variable intervals. At admission physical examination was negative except for the tumor of the skull, near midline, in right parietal region. Neurological examination showed some flattening of left side of face; some loss of power in left arm and leg; deep reflexes exaggerated, left side, with suggestive Babinski, ankle clonus and some spasticity. Laboratory findings, including spinal fluid, were negative. Eye grounds, negative. X-ray of skull showed on anterior part of right parietal bone, a large fairly-well defined area of lessened density, resulting in bulging outward of outer table and depression of inner table with break in continuity. An encephalogram was done, which in addition to the x-ray findings, showed a displacement downward and outward of right lateral ventricle with lessening in size. Some cortical atrophy was present in region of tumor, and diploeic veins were seen to be enlarged, especially those converging towards the involved area. The findings pointed to meningeal endothelioma. At operation a tumor was removed from the right parietal region, attached firmly to the dura, and embracing the superior longitudinal sinus. It was the size of a large egg. The overlying bone measured 12 mm. at its thickest portion. The pathological diagnosis was "meningeal endothelioma." Patient at present time shows paralysis of left arm and right leg, but gradually increasing strength in right arm and left leg.

Pernicious Anemia With Neurologic Symptoms

Case presentation by Dr. L. V. Tepley: A woman thirty-four years of age had been in ill health for the last three of four years. About nine months ago, walking became increasingly difficult, until six weeks ago, when she was utterly unable to use her legs. She also complained of headaches, dizziness, shortness of breath, numbness in both hands and tingling and burning in feet. She suffered from an epigastric discomfort and inability to retain foods. Neurologic and physical examinations were essentially negative, excepting for a characteristic pallor.

On date of examination, June 17, 1931, the laboratory findings were: The blood hgb. 28, erythrocytes 920,000, leucocytes 2,800, numerous stipled cells, very pronounced poikilocytosis, halo positive. Wassermann negative.

While anticipating a blood transfusion and getting doners and patient typed (she was a group 4) patient was given half a dram of dilute hydrochloric acid three times a day. Epigastric distress disappeared after first few doses. She was soon able to retain light nourishment and manifested a corresponding subjective improvement. She was advised to use liver and tripe as part of her routine diet.

Laboratory findings on June 23: Hgb. 38, erythrocytes 1,400,000, whites 4,200. Blood stain, as above. On July 3: hgb. 54, erythrocytes 2,200,000, whites 6,200. On July 10: hgb 60, erythrocytes, 2,500,000. On August 25: hgb. 78, erythrocytes 3,500,000—slight poikilocytosis. Patient is able to walk around the house and has gained in weight. Laboratory findings on September 25: hgb. 82, eythrocytes 4,200,000, whites 7,400, differential negative. Laboratory findings on December 5: same as of late date. The patient had gained twenty-one pounds. Discontinuation of the hydrochloric acid caused epigastric distress; hence she was still using it. The numbness in fingers and tingling in feet was still present. She was able to do most of her work.

The case is reported as pernicious anemia. She uses liver and tripe four or five times a week. Credit for the improvement is due to the hydrochloric acid as it was practically the only thing the author has added to the treatment.

Friedreich's Paramyoclonus Multiplex

Case presentation by Dr. R. A. Jefferson: Male, aged 24, complaining of nervousness and jerking spells. On observation it was noted that the spells were in the nature of shock like contractions of the muscles of respiration, of the arms, forearms, and shoulder girdle. There was also an occasional grunt or snort accompanied by no spoken word or exclamation. Examination was negative save for the fundi oculi which showed patchy areas of whitening about the larger vessels. The case was seen by Dr. Finnoff who stated that this condition was a congenital one caused by patchy areas of myelinization. It apparently had nothing to do with the syndrome in hand.

The history placed the origin of the seizures at about 9 or 10 years of age when he was taken out of school because of extreme nervousness, which was thought by relatives to be "St. Vitus' Dance." Since this time he has had exacerbations and remissions of his affliction. There is a tendency for attacks to be brought on by emo-

tional difficulties and situations in his life. On one occasion an auto accident brought on the seizures, on another occasion some marital maladjustment. He stated that he felt that sexual excess influenced his condition unfavorably. He was studied in the Colorado Psychopathic Hospital intensively. Serology was negative in blood and spinal fluid. Encephalographic studies showed a small area of atrophy in the parietal region.

The problem was one of diagnosis. The following conditions were considered: Friedreich's paramyoclonus multiplex, encephalitic paramyoclonus multiplex, malady of convulsive tics and hysteria. It was learned that the condition persisted during sleep which is atypical of encephalitic paramyoclonus multiplex, nor was there any history of any illness which could have been accurately interpreted as encephalitis. Malady of convulsive tics is usually, if not invariably, accompanied by exclamatory epithets more frequently than not obscene and is regarded by the French as a true neurosis. This case is considered one of Friedreich's paramyoclonus multiplex. If this is true this is one of the few authentic cases reported. He was placed on a solution of sodium fluoride, drams three, three times a day, and was advised to take up work upon a farm, so that his condition would not seriously interfere with his economic adjustment. When last heard from, he was getting along well, and felt that the medication had benefited him.

Second case: A white male, aged 40, single, and unemployed. He complained of restlessness, a throbbing sensation in the abdomen, which, "went right down and got into my genitals," cold hands and feet, and obsessive thinking, largely concerned with the conditions of his teeth. His condition came on suddenly after edentulation in three sittings. History indicated that a year previously he had visited a dentist who told him that his teeth were in very bad condition. He subsequently engaged upon a frantic and futile endeavor to save his teeth, trying all the mouth washes and dentifrices available. He also became greatly preoccupied with the subject of teeth and unfavorably compared the condition of his own with that of others, particularly other men. The subjects of conversation in his social contacts were so greatly concerned with his obsessive thinking about his teeth that he made himself a nuisance not only to friends but to his own family. He became very jealous of his brother, with whom he lived, because his teeth were very good. His brother had a wife and a family of three children.

In investigating the unconscious material through free association, it was learned that when a young child his grandmother would tell ghost stories to them and frighten them. The grandmother had false teeth and would frequently take them out and make faces in order to illustrate her story. It also developed that she had threatened him upon occasion when he had been found playing with his genitalia. The man's social situation at the time he entered the clinic was also partly responsible for his obsessive thinking. He had at the age of 40, found himself a failure socially, economically, and sexually, and could not help but make unfavorable comparisons with other men particularly his brother, who was economically competent and had a wife and three children. The patient was also dependent extremely upon his father and mother for emotional and economic support. The case was evaluated as an obsessive ruminative tension state, and following the sensitization to his preoccupations and aeration of his present situation and past memories he recovered so far as to be able to again engage in his usual occupation.

J. R. JAEGER,
Secretary.

WOMAN'S AUXILIARY

HYGEIA

The Woman's Auxiliary have been asked by the House of Delegates of the American Medical Association to assist them in their program of education of the lay public carried on through the health magazine, Hygeia, concerning the work of the medical profession in the prevention and cure of disease. Hygeia is the best medium for reaching teachers of the young and the pupils in the schools throughout our state, informing them of the progress of medical science and of scientific means for the prevention of diseases. We are beginning this year's campaign in Colorado and have asked the Presidents of each local auxiliary to appoint a Hygeia Chairman, who will carry out our program in her district.

A calendar of work has been outlined for Hygeia which we hope will place it in schools, colleges, clubs, and before legislators in each county, as well as in every Doctor's and Dentist's office.

Much is being written about adult education and the fact that all phases of education are interdependent upon Health Education. We feel it is incumbent upon the Woman's Auxiliary, which has a distinct contribution to make to this field, to realize that we cannot escape the obligation that is ours to help find a way to a better physical, mental, and social help for all the children of the land, and that human agencies, directed intelligently, are the forces with which the work must be done.

We ask you to assist us in this work by giving us your subscriptions to Hygeia or by renewing your present subscription.

Let us concentrate our energies on making this the greatest year ever for Hygeia.

The Woman's Auxiliary to the Denver County Medical Society has made a practice of donating each year a number of Hygeia Subscriptions to various schools and organizations. This year we are donating Hygeia Subscriptions to twenty-five Pre-Schools of Denver.

MRS. CLYDE J. COOPER,
Hygeia Chairman for Colorado.

Our National President-elect, Mrs. Walter Jackson Freeman, is just home after a stormy voyage from Germany with her fortunately convalescent son. Our congratulations are to ourselves as well as to her for her safe return.

DENVER COUNTY

Mrs. James F. Percy, Chairman of Organization for the entire western territory, was a Denver visitor December 4 and 5 during the clinics for neurology which were held here. She was entertained by Mrs. T. Mitchell Burns, president of the Auxiliary to the Colorado State Medical Society. She has been very active in Auxiliary work—at one time being president of the Los Angeles Auxiliary. She gave very helpful advice on organization, and as Mrs. W. E. Knowles, state

chairman of organization, was able to be here from Greeley, no doubt we will hear more about her visit.

Mrs. Percy emphasized the fact that we must do all we can to keep every member in the Auxiliaries, whether she is active or not, and that we must keep in personal touch with every auxiliary. She feels that more stress should be placed upon scientific and medical subjects in contrast to the past, which has had most emphasis on social and philanthropic interests. Certainly we could use more health discussions.

The November meeting of the Woman's Auxiliary to the Denver County Medical Society was held at the Nurses' Home of the Colorado General Hospital, upon the invitation of Mrs. Kienenger, superintendent of the University of Colorado School of Nursing.

It was decided that the chairman of the educational committee, Mrs. Robert Maul, make copies of "Hygeia" available to twenty-five preschool centers each month. This splendid action will do much to further the cause of health among the laity.

The annual card party of the Auxiliary will be given on the third Monday in February in the Daniels and Fisher tea room. The proceeds of this affair will go toward the annual gift of one hundred dollars to the Medical Student Loan Fund.

Margaret Drennen, accompanied by Catherine Webber, both from the Lamont School of Music, gave a few solos. Mrs. Sullivan of the Community Chest briefly spoke of the activities of the chest and urged each member to do her bit this year toward relief of the poor and unemployed of Denver. After a recitation was given by Catherine Webber, tea was served.

The president, Mrs. H. J. Corper, expressed the thanks and appreciation of the auxiliary to Mrs. Kienenger for a most enjoyable meeting.

It was decided that the Auxiliary dispense with the December meeting because of the holidays.

BERTHA F. WOLLENWEBER,
Secretary of the Denver County Auxiliary.

WELD COUNTY

In an interesting letter from Mrs. Leo L. Lux, secretary of the Weld County Medical Auxiliary, she tells of the following activities: "Our activities are not many, but we try to meet our need. We have quarterly meetings, and once during the year we have a dinner party for the men of the Medical Society. In addition to this, we give gifts to the patients at our county hospital at Christmas time, and also we send subscriptions of Hygeia to twenty schools and libraries throughout the county."

Weld County has a membership of thirty-three, of which most are from Greeley. Certainly their activities are most commendable. Last month their Annual Hospital Dinner was held, and Dr. F. B. Stephenson of Denver was one of the speakers. The invitations to this affair were most clever—a physician's prescription with "dosage," sent to all guests.

NOTICE TO AUXILIARIES

These columns are given to the auxiliaries by the Colorado State Medical Society. It is the desire of the State Auxiliary to give in them news and information of the various County Auxiliaries and items of state interest. Please send any item of interest, notice of meetings, and information concerning activities of your County Auxiliary to Mrs. Douglas W. Macomber, State Publicity Chairman, 1407 East 10th Avenue, Denver, Colo.

COLORADO NEWS NOTES

DENVER—On Monday, December 21, Judge Charles C. Sackmann of the Denver District Court affirmed the action of the State Board of Medical Examiners in revoking the license of Doctor Kalman C. Sapero on the ground that he had been guilty of unprofessional and dishonorable conduct in his method of advertising his visits to various cities and towns in the State. Judge Sackmann based his decision upon the proposition that the question of what conduct is or is not honorable and professional for a physician is one which must be decided by physicians as a conclusion of fact, and not one which may be decided by judges as a question of law. Dr. Sapero's attorneys stated that they would take the case to the Supreme Court of the State for review, and that if the State Supreme Court decided against them they would attempt to take it to the United States Supreme Court.

DENVER—Dr. and Mrs. George K. Cotton are the parents of a daughter born at Mercy Hospital December 4.

DENVER—Dr. James A. Philpott was elected President of the Denver General Hospital staff for 1932. He succeeds Dr. Frank B. Stephenson. Dr. Rex L. Murphy was elected vice-president and Dr. W. B. Yegge was re-elected secretary.

DENVER—Dr. Maurice H. Rees attended the annual convention of the Association of American Medical Colleges of which he is president. The Convention was held at New Orleans. Dr. Robert Lewis also attended the convention.

FORT LYON—Dr. J. E. Gaines is being transferred to the Veteran's Administration Hospital at Milwaukee, Wisconsin. He has been stationed at Fort Lyon for more than a year.

FORT COLLINS—Dr. Roy L. Gleason read a paper on "The County Hospital," before the Lion's Club of Fort Collins at the County Hospital.

GREELEY—The annual banquet of the Greeley hospital staff was held Monday night, November 23, at the hospital. Doctor J. A. Weaver presided as toastmaster. After a musical program short addresses were given by Doctor Burgett Woodcock, Mrs. Clara Browitt, William A. Carlson, Mrs. T. M. Burns of Denver, president of the Woman's Auxiliary of the State Medical Society and Dr. F. B. Stephenson of Denver, president-elect of the Colorado State Medical Society.

LA JUNTA—Dr. H. E. Colby of La Junta has been ill and his many friends wish him a speedy recovery.

PUEBLO—Doctor Harold T. Low was elected president of the Pueblo Clinical and Pathological Society at its annual meeting held December 9 at the Congress Hotel. Dr. C. W. Streamer was elected vice-president and Dr. Harvey S. Rusk was elected secretary. Doctor A. R. Williamson, retiring president, gave the address of the evening.

PUEBLO—Dr. William E. Buck, city health officer, delivered an address on "Food Poisoning" at the December meeting of the Pueblo Public Health Association held at the Blue Bird Restaurant, December 2.

WYOMING SECTION

President, R. H. Sanders, Rock Springs — Vice President, Herbert L. Harvey, Casper
President-elect, Frederick L. Beck, Cheyenne
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to the A. M. A.: George P. Johnston, Cheyenne — Alternate, Earl Whedon, Sheridan
Councillors: C. Y. Beard, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shaffer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan — Emory L. Jewell, Shoshoni — C. W. Jeffrey, Rawlins

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

THE NEW YEAR OF 1932

THE passing of the year 1931 into history has carried with it pleasures and sorrows. As we review the happiness it brought to us, let us forget the sorrows. Many a heartache occurred in all of our lives, but it is equally true we enjoyed many happy hours in 1931.

Standing in the doorway of the New Year a little stranger appears who beckons onward into lands where we know not the trails. That the New Year will no doubt lead us along beautiful vistas is true, and yet we by closing our eyes may miss many of the beauties, many of the wonderful chances to be happy. Exploring our country with new and old friends we look forward to greater things for Wyoming medicine. Dr. R. H. Sanders, our President, is working out plans for a greater State Medical Society, and if every member assists him as he should the New Year will be one of the greatest in the history of Wyoming medicine. Without loyal assistance and hearty cooperation, no President can succeed, but we firmly believe the medical men of Wyoming will be true to their trust. The greatest evidence of loyalty to our President that we can give would be our constant support and our efforts to enroll every ethical medical man in Wyoming into our membership. That ought to be our goal—one hundred per cent strong during 1932.

If such a membership could be secured, our President would be most happy at the close of 1932. We need the help of every regular medical man in Wyoming and they, in turn, need the help of the State Medical Society in their professional lives.

E. W.

THE WYOMING STATE HOSPITAL FOR THE INSANE

CHARGES against the management of the Wyoming State Hospital for the Insane have been made by the former Chief Nurse. No half-hearted investigation by only one member of the State Board of Charities and Reform will satisfy the people of Wyoming.

Editorial comment will be withheld until the Governor and the Board have been given plenty of time to conduct a fair hearing and a chance to correct any abuses found, but if the Governor and the other State officers do not go to the bottom of such charges, we shall expose the conditions existing .

E. W.

YOUR DUES ARE DUE

TEN dollars paid to your County Medical Secretary before the last day of January, 1932, puts you in good standing with the State Medical Society. If you belong to the State Medical Society and have no County Society, see that these due are sent to the State Secretary before the end of January.

E. W.

Encourage immunization against diphtheria among children, particularly in the pre-school years—six months to six years.

MODIFICATIONS OF THE ASCHHEIM-ZONDEK PREGNANCY TEST*

RODNEY H. JONES, M. D.
DENVER

The laboratory diagnosis of early pregnancy, before clinical signs are definite, has always been an interesting research problem, and one which has been given a great amount of attention. This is well shown by the large number of pregnancy tests, since disearded, which have been introdueed. Some of the better known are the Abderhalden test, the ninhydrin flocculation test, sugar tolerance test, and determination of the sedimentation time. All of these tests have the common fault of inaccuracy when used by the profession in general. In addition, certain of the tests are so complicated that more skill is required than is possible for the man who does only a few tests at infrequent intervals.

With the advent of endocrinology in the last few years it was only natural, that in the study of various glands of internal secretion, their action on the reproductive system would be studied in detail. It has by now been quite definitely established that there is a close association of the anterior pituitary gland and the generative organs of both male and female.

Aschheim and Zondek of Germany, and Smith and Engle of this country were the first to demonstrate this relationship, and their results have been widely confirmed by workers in all parts of the scientific world.

It has been shown repeatedly that if bits of anterior pituitary gland tissue are implanted subcutaneously in immature female rats or mice, the ovaries of these animals will enlarge rapidly. Follicles will develop, corpora lutea will form, either in the ruptured follicles or in follicles which have matured but not ruptured. Also the uterus and uterine horns enlarge, with development of the uterine mucosa to the stage which is seen normally at estrus. The imperforate vagina matures, becomes patent, and the typical squamous cell smear of estrus appears. The entire picture is one of rapid maturity of the reproductive system. If an immature male rat or mouse is used instead of the female animal, the genital apparatus will show the same rapid development and maturation after the anterior pituitary gland transplant, although the changes are not as striking and clear cut.

Aschheim and Zondek realized that there was a definite enlargement of the anterior pituitary gland in pregnancy, and attempted to demonstrate the presence of the hormone in the blood and urine of pregnant women by the use of immature female mice. They were able to produce much the same picture in the genitalia of these animals by the injection of urine from a case of pregnancy as had been produced by the anterior pituitary gland transplants. They obtained these results with urine from very early cases of pregnancy—first at three weeks, and proved that it was present in abundance throughout the period of gestation, but disappeared within three to four days after the uterus was emptied.

Further research led them to the conclusion that pregnancy was the only common cause of an excess of the anterior pituitary hormone in the urine. A standard technic was established and used by them on over five hundred cases. It consisted in the injection of five mice three times a day for two days. Each animal was given a different amount of the urine, which varied from 0.2 c. c. to 0.5 c. c. With this technic they reported a two per cent error.

For the past two and a half years we have used a modification of the original technic of Aschheim and Zondek. Rats are used as test animals. Two immature female rats, thirty to thirty-five days old, are injected three times a day for three days, 1.5 c. c. of urine being used at each injection. Five days after the first injection the animals are killed. The ovaries are exposed by a midline abdominal incision and examined

*Department of Clinical Pathology, University of Colorado School of Medicine and Hospitals.

Read before the annual session of the Wyoming State Medical Society at Rawlins, July 14, 1931.

grossly. In animals injected with urine from a pregnant woman, the ovaries are large and red in appearance due to the hemorrhages into the developed follicles, and to the dilation of the blood vessels. In a negative case the ovaries are unchanged, or only slightly enlarged, with no evidence of hemorrhage. The uterus and uterine horns are enlarged and injected in the cases which show the large hemorrhagic ovaries. The same changes in the uterus and uterine horns may or may not be noted in a negative case. These changes in the uterus and uterine horns are due to folliculin, a hormone which has either been produced in the ovary of the animal, or introduced in the injected urine. Many women who are not pregnant excrete folliculin in the urine abundantly at times. For this reason it is very necessary to depend only upon the changes in the ovaries rather than upon the changes in other portions of the genitalia for the interpretation of the results.

In all we have tested four hundred and twenty-three cases by the modified technic, and our results show an error of less than three per cent. This total consists of two hundred and fifty-five cases of pregnancy, one hundred and ninety-six of which were within the first three months, thirty-eight were between three and six months, and twenty-one were from six to nine months pregnant. There were one hundred and sixty-eight negative cases, thirty-four of which were males. The errors occurred as follows: Seven false positive reactions, three false negative reactions within the first three months of gestation, one in the series between three and six months, and one in the last three months of pregnancy. One of the false positive reactions occurred repeatedly in a case which upon operation was found to have a large dermoid cyst. Other workers have reported false positive reactions on cases of teratoma, chorio-epithelioma, hydatid mole, and certain cases of carcinoma of the ovaries and testes, all of which are related in some way to pregnancy as abnormal development of reproductive tissue.

About the same length of time is required for the original technic as for the modification just described. The original method, however, requires a much larger number of animals. The mice are much more susceptible to infection and often die before the test is completed. The rats are larger, easier to handle, and the changes in the ovaries are more definite.

The hormone is thermolabile and does not pass through a Berkefeld filter. For this reason it is not possible to sterilize the specimens of urine before they are used. They can, however, be preserved and kept for several days by the addition of toluol. Thus if the urine is collected by catheterization, or after careful cleansing of the external genitalia, and a little toluol added, it is possible to send the specimen to some central laboratory where the test can be more satisfactorily performed.

The only outstanding objection to this test is the time element. It is very seldom, however, that the prognosis in a suspected case of pregnancy will be greatly affected by the time necessary for the test to be completed. There has recently been introduced a new modification of the test in which adult female rabbits are used, and the entire test is completed within twenty-four to thirty-six hours. The expense for this procedure is much greater; also regular operating room equipment and technic is required in the examination of the animals. We feel that it has little value over the original method. This modification depends upon the fact that adult female rabbits never ovulate normally, except after copulation. However when anterior pituitary hormone is introduced by the injection of urine from a case of pregnancy, ovulation will occur, and the ruptured follicles can be seen when the ovaries are examined at operation.

Since we have obtained such uniformly good results with our modification we are satisfied to continue in its use, and feel that it is as easy to perform as any of the tests thus far introduced, and much more economical. The Aschheim-Zondek test while limited in its application should be kept in mind at all times by the practitioner, and is a test which every laboratory should be prepared to do on occasion.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V January, 1932 Number 1

SANOCRYSIN (sodium-gold-thiosulphate), was announced by Møllgaard in 1924. Clinical observations of the effect of the drug, published by numerous European writers since then, have been decidedly variable. Generally speaking, favorable results have been reported of cases with the exudative type of lesion, while little clinical improvement has been noticed in cases of the chronic type. Since some of the clinical reports do not seem to justify the conclusions drawn, a group of investigators in the William H. Maybury Sanatorium in Michigan decided to make an intensive study of the effect of sanocrysin on a small, carefully selected, closely comparable group according to a prearranged plan. Results of the study were published in the October, 1931, American Review of Tuberculosis, of which the following is a brief abstract.

A TRIAL OF SANOCRYSIN

Møllgaard claimed that sanocrysin has a specifically curative effect on tuberculosis. He believed that the drug, introduced into the blood stream, permeates tuberculous lesions and there kills many, if not all of the tubercle bacilli. Exudative, not too acute, pulmonary lesions of early age, being more pervious than the fibrous type, were considered more responsive to treatment. The fever, albuminuria, eruptions, and loss of weight resulting from the treatment was attributed to the liberation of toxins from the disintegrated bacilli. To offset the ill effects, an anti-serum was developed, and this was administered at the first sign of reaction; namely, albuminuria.

Other workers used the drug, as well as various other gold compounds, in human cases. The amount of gold in these compounds varies greatly; sanocrysin contains 37.4 per cent of gold. The present consensus of opinion seems to be that the chemical is not a specific bactericide, that nevertheless favorable responses sometimes occur, and that the toxic properties of the drug compel consideration. Metallic poisoning, rather than tuberculin-like shock, seems to account for the unfavorable reactions; consequently, Møllgaard's antiserum has been discarded by most clinicians and smaller doses of sanocrysin are given.

Plan of Trial

The treatment was explained to a group of patients of the William H. Maybury Sanatorium. The 24 patients who were finally chosen from among the volunteers were all in good general condition who would, therefore, not be likely to suffer ill effects from the drug. Most of them had benefited to some extent by the routine sanatorium treatment, but the healing of their disease was slow and incomplete. The lesions were chiefly of the exudative and mixed exudative-productive types. All were free from complications.

On the basis of clinical, X-ray and laboratory findings, the patients were then divided into two equal and comparable groups, cases being matched one with another as closely as possible. By a flip of the coin, Group I was designated as the sanocrysin-treated and Group II as controls. The patients themselves were not aware of any distinction in treatment.

Method of Observations

The patients were put to bed for a month prior to starting any medication, during which time uniform data and information were collected to serve as a basis of comparison. The preliminary thirty days' study was carried out in the following manner:

1. The chest was examined biweekly particularly to determine any variation in the extent or distribution of the rales, the findings being described in the record.
2. The chest was X-rayed (stereoscopic) at the beginning and at the end of the month and the films preserved, special notes of any changes being recorded.
3. Careful records of the presence and clinical course of complications and symptoms were made.

4. The sputum was weighed daily, and this figure was charted; also averaged at the end of the month.

5. The sputum was examined microscopically every two weeks to determine the presence of tubercle bacilli. A method of sputum concentration and animal inoculation was used routinely when indicated.

6. Body weight was measured and recorded weekly.

At the end of this preliminary checking, the same routine was continued during the period of the trial, except that physical examinations were done more frequently, particularly to show the presence and behavior of perifocal reactions, and stereograms of the chest were made monthly; oftener in cases showing rapid change.

Each patient receiving sanocrysin (Group I) was started with 0.1 mg. of the drug, dissolved in 2 cc. of distilled water and injected into a cubital vein. At intervals of four days, unless contraindicated, additional injections were given, increasing by 0.1 gm. up to 0.3 gm., and then increasing to 0.5 gm. The amount of distilled water was increased to 5 cc. when the dose of sanocrysin exceeded 0.3 gm. The 0.5-gm. dose was then repeated until the course was completed. The number of injections varied from nine to fourteen, and whenever there was a suspicion of a dangerous reaction the next dose was reduced, omitted or postponed. The total amount of sanocrysin administered to single patients varied from 3.1 to 6.1 gm., while the total amount per kgm. of body weight varied from 0.6 to 0.1 gm. The patients treated as controls (Group II) each received 14 intravenous injections of distilled water (2 cc. each) at intervals of four days.

Effects of Treatment

The detailed effects on the tuberculous conditions are minutely described in the article. The observations include the effect on temperature, pulse, lassitude, body weight, cough, sputum, appetite, sleep, physical findings, pain in chest, hemoptysis, dyspnea. Similarly, the toxic effects referable to the drug are noted as these affected the skin, nerves (neuritis), mucous membrane, eye, gastrointestinal tract, liver, kidney, etc. Laboratory evidences were as carefully and as fully studied. The study lasted approximately six months, during the first two of which sanocrysin treatment was given. During the entire period of the trial, both groups were kept in bed.

A follow-up of patients was instituted one year after the close of the study. In finally determining the effects of the treatment, all the observations were correlated. Chief reliance was placed on such factors as changes in the X-ray shadows of pulmonary lesions, presence or absence of tubercle bacilli in the sputum, measurable symptoms such as temperature, and fluctuations in body weight. Changes in physical signs were not given much value. Toxic effects of the drug were distinguished as far as possible from symptoms referable to the disease itself. A summary of the results is as follows:

	Group I (Sanocrysin)	Group II (Control)
Number	12	12
Slightly improved	5	6
Much improved	1	1
Unchanged	0	3
Slightly worse	1	1
Much worse	4	
Slight toxic effect	8	
Severe toxic effect	3	
Fatal	1	

Conclusion

"1. This investigation proves the need and the merit of a carefully prearranged plan to be followed in a clinical test of a chemotherapeutic agent in tuberculous patients.

"2. We discovered no evidence in 12 cases, studied according to such a plan, that sanocrysin, given in small, gradually increasing doses up to a total of 6.1 gm., has a beneficial effect on pulmonary tuberculosis or its complications.

"3. Compared with 'control' cases, more of our sanocrysin-treated cases became worse. The evidence is strongly suggestive that sanocrysin was at least partly responsible for the unfavorable trend of the disease in some of these cases.

"4. Sanocrysin exerted definitely harmful systemic effects in all our treated cases, partly as a secondary result of its action on the local tuberculous lesions, but mostly, we believe, by virtue of its own inherent toxicity. These effects were usually on the nutrition, gastrointestinal function, temperature, skin, mucous membranes and kidneys.

"5. One sanocrysin-treated patient died from parenchymatous degeneration of the liver and other effects which we interpret as gold poisoning. We could not anticipate this unfortunate outcome.

"6. Because of the lack of definite evidence of benefit and because of positive evidence of harm which in some respects is long-lasting, especially in the kidneys, the use of sanocrysin, as we used it, is not justified."—*Sanocrysin in Pulm. Tuberc., J. Burns Amberson, Jr., B. T. McMahon, and Max Pinner, Am. Rev. of Tuberc., Oct., 1931.*

DURING COLLEGE DAYS, a young man should give thought to his future. He should have an objective in mind and a clear idea of the field of business in which he intends to engage.

Below are ten reasons why you should consider the Life Insurance Business.

Because:

1. You are in business for yourself and your earnings will all be YOURS.
2. You write your own pay check.
3. You are never out of a job.
4. There is no old age limit to put you "on the shelf."
5. Your earning power is projected further into the future than most businesses.
6. You will gain broadened experience from a large number of contacts.
7. It is a healthful and interesting work.
8. More than 95 per cent of all men in America earn less than $5000 a year. Why? Because they're in blind alley jobs.
9. You select those with whom you wish to do business.
10. We have undeniable proof that there are no "Bad Life Insurance Years."

We will be pleased to show you the unusual opportunities in this business.

Provident Mutual
Life Insurance Company of Philadelphia
Founded 1865

GEO. N. QUIGLEY
General Agent
1008 Patterson Bldg. Denver, Colo.



For full information about the property and the price and terms, see

SETH B. BRADLEY
The Bradley Realty Inv. Co.
826 DENVER NATIONAL BLDG., MA. 4318

IN HOSPITAL ZONE

Suitable for physicians

1778 GILPIN ST.

Cor. 18th Ave.

Eleven-room modern house with beautiful hardwood finish, on 3 corner lots and enough ground for future expansion, garages, etc.

The third story could be taken off and the house extended to the alley in Spanish architecture and the whole building stuccoed, and the house has other possibilities.

Many physicians are locating their offices in the residential districts, such as Dr. Robert G. Packard at 18th and Gilpin St., Dr. F. P. Gengenbach at 19th and Gilpin, Dr. Cuthbert Powell, Dr. Leonard M. Van Stone and Dr. H. J. Von Detton at 16th and Humboldt, and here is your chance to do likewise.

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. B. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D., Univ. of Colo School of Medicine and Hospitals, Denver

THE RETIRING PRESIDENT

THE retirement of Dr. Maurice H. Rees, the third president of the Colorado Hospital Association, from the presidency of the organization, is noted with regret by all members. Dr. Rees has held this office since



MAURICE H. REES, M. D.

1927. Under his leadership the Association has increased both in numbers and in the scope of its activities. It is now recognized as one of the leading state associations, and national speakers consider it a privilege to appear on the annual and quarterly meeting programs. Many important hospital problems have been solved for the members throughout the state during these years. A mere enumeration of these accomplishments under the direction of Dr. Rees does not adequately tell the story of what his administration has meant to the Association, nor does it convey the sense of appreciation which prevails among his fellow members.

The following resolution was passed at the recent annual convention in Colorado Springs:

"We, the members of the nominating committee, wish, on behalf of the members of the Colorado Hospital Association, to express our most sincere appreciation to our esteemed President and Co-Worker, Dean Maurice H. Rees, who, during his term of service, has given of his valuable time, aiding us materially by his guidance and encouragement, to the end that this Association has grown from infancy into the full maturity of a wholesome and valuable organization."

Dr. Rees' retirement from the presidency does not mean that he has given up his interest in the Association, as he has accepted a place on the Board of Trustees, in which capacity he will still continue the constructive program which he has promoted.

THE HOSPITALIZATION OF VETERANS

THE government of the United States has increased its provision for the medical care of military and naval veterans by extending treatment to those who are disabled not only by causes attributed to the hazards of service but to those suffering from any other disability. It is evidently the intention of Congress to insure the veterans opportunities for medical care equal to those enjoyed by any citizen. The carrying out of this program will call for extensive building of veterans' hospitals, as the government must provide more hospital beds than are now available for these veterans, in the already established government hospitals. More-

PRINTING IS THE CORRECT PRESCRIPTION

for the apathetical condition of the Doctor's, Hospital's or Sanitarium's Business.

¶ The judicious use of correct stationery, a tactful reminder, an engaging booklet or an illustrated prospectus will do much to restore the public's interest in your practice or institution. We shall be glad to submit plans for the development of any or all of these ideas.

THE MILES & DRYER PRINTING COMPANY

1936-38 Lawrence St. DENVER Telephone KEystone 6348



4 out of 5
DOCTORS AND DENTISTS
OF THE
REPUBLIC BUILDING

Have found that their income has increased since becoming our tenants, notwithstanding the present depression.

Ask most any of them about it.

If you wish to become a member of the Republic Building Medical Family, see Mr. Drew, 210 Republic Building. Several desirable locations are available.

NEWCOMB REALTY CO., Managers

210 Republic Building KEystone 7231

P S.—2,800,000 persons used the facilities of this building in 1930.

SOME ONE HAS TO SELL THE BEST COAL
SO WE DO!
"L.M." Lignite quality Lump Coal. Tremendous heat. Very little ash. A great money and labor saving coal. We guarantee it. Why not try it. Oil coke 99 per cent pure. (Hotter than hot) $11.50 per ton. Other grades of coal at prices to suit.
Great Western Fuel & Hardware Co.
TA. 5353 Denver 633 15th St.

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5111
DAY STORAGE $5 PER MONTH
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

FURS
REPAIRING :: REMODELING
Fur Garments Made to Order
Large Selection of Silver Fox Scarfs
Andre De Vajda
FURRIER
1451 COURT PLACE
Phone MAin 2792
Denver, Colorado

over, this program will mean that all of the veterans now treated in private hospitals will be hospitalized in institutions under government control.

The American and Colorado Hospital Associations are both protesting against this building program. Both associations, although they disapprove in no manner of the program of hospitalizing these veterans, believe that the government can provide just as efficient care for these patients in the civilian hospitals which are already established, at a cost no greater to the government than the present cost of operating the existing veterans' and military hospitals. Such a plan would save the government from expending the capital amount necessary for building additional veterans' hospitals, and at the same time prove a benefit to the individual communities.

The Colorado Hospital Association in its resolution points out the following advantages to the veterans and government of such a program as the hospital groups propose:

(a) The veteran may receive in an approved civilian hospital in his neighborhood the opportunity enjoyed by his fellow citizens for immediate treatment in the event of accident or acute illness without the necessity and danger of halting treatment for removal to the nearest government hospital.

(b) If referred to a civilian hospital the patient would not be subjected to separation from family, friends, and business environment during the period of illness and incapacity, as well as in the event of death, as would often result from reference to a government hospital.

(c) After the acute stage of illness he will not be required to remain at the hospital for necessary convalescent observation, prescription, and care, instead of returning to his home, thus eliminating additional distress to himself and additional cost to the nation.

(d) The patient will not be subjected to the dangers and delays of transportation, and the cost thereof to the nation will be avoided.

(Continued on Page Sixteen)

THE GOLDEN PLUNGE

OPEN ALL THE YEAR AROUND

The Clean and Sanitary Swimming Pool

For Ladies and Gentlemen

Delightfully Warm and Pleasant in Coldest Weather

Thirty Minutes from Denver on Fine Highways

Grant Churches, Manager Phone Golden 266

OUR HEARTY APPRECIATION, DOCTOR,

Of your patronage and co-operation during the past year and the hope that we may give you ever better service and merit an increasing volume of your business

TAYLOR-MADE
Corsets, Abdominal Belts, Trusses,
Kenlastic Stockings, Brassieres

CHAS. B. E. TAYLOR

ELIZABETH KENDRICK TAYLOR

204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

BOTULINUS
(Food Poisoning)
ANTITOXIN

Human Rabies Vaccine 14+21 Injection Method
We Supply Municipal Hospitals

A. A. HERMANN, D.V.S.
Small Animal Veterinarian
3854 Federal Blvd., Denver. **GAl. 0500**

The Best Tonic for Your Convalescent
A PUPPY FROM HERMOSA KENNELS
5495 Federal **GAl. 0830**

DOCTOR—
Your Medical or Surgical Bag
ECONOMICALLY REPAIRED
And made to look like new—in quick time —a few hours at the most—the cost is trifling compared to a new bag
GEORGE BRANDENBURG
Leather Factory
2249 WELTON ST. TAbor 2048
Headquarters for Boston Bags— Grips — Suitcases

Graduate School *of* Medicine
THE TULANE UNIVERSITY OF LOUISIANA
Approved by the Council on Medical Education of the A. M. A.
Post graduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

The Cocks-Clark Engraving Co.
Illustrators — Designers
Photo Retouchers and Engravers
Tabor 6244
2200 ARAPAHOE ST.
DENVER

AETNA
COMPLETE MALPRACTICE PROTECTION
By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE AETNA LIFE INSURANCE CO.
Fred E. Breisch, Manager
529 Midland Savings Building
KEystone 6205

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES
Maker of All Kinds of
ORTHOPEDIC APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.
Phone KEystone 2702
Denver, Colo.

SPENCER CORSETS
SURGICAL GARMENTS

NOW available in
our new Denver office.

218 EMPIRE BLDG. TAbor 6289

Emergency Garments Carried at All Times

WHERE IS IT ADVERTISED?

Do you ask yourself this question, Doctor, before you buy medical or surgical products? Do so—every time.
Because if it is advertised in COLORADO MEDICINE it carries the stamp of approval of your own Publication Committee.

LOOK FOR IT ON THESE PAGES!

LET
The WESTERN
MESSENGER
SERVICE



At your service, when you're
in a hurry

Phone TAbor 5345

424 18th St.

Run Your Errands Denver Colorado

MONTCLAIR TRAINING SCHOOL

FOR BOYS AND GIRLS

A Christian Home for boys and girls to which any child from 5 to 16 years is eligible. It is our endeavor to create a homelike atmosphere and to fulfill every need in the development of ideal childhood.

Boys are taught manual training, metal and leather crafts, physical culture, vocal and band instruction. Our Cubs and Boy Scouts develop character.

Girls are taught home economics and various household duties, vocal and band instruction. Camp Fire leadership will set an example of ideal womanhood.

Rates very reasonable. School endorsed by excellent references. Inquire Headmaster.

Phone YOrk 1765 7125 East Colfax Avenue Denver, Colorado

When impartial and dependable advice is required in connection with any insurance policy or problem,

See

Max S. Schayer
Insurance Counselor

535 EMPIRE BLDG

TAbor 5563 KEystone 6414

Under New Management

PHYSICIANS AND SURGEONS HOSPITAL

Medical
Surgical
Obstetrical

2939 E. COLFAX YOrk 1424

Bessie A. Keener, Supt.

Hospitalization of Veterans

(Continued from Page Twelve)

(e) The patient will be afforded opportunities for special and consultive professional care through the facilities provided by many of the large civilian hospitals which may be found in his neighborhood.

(f) The cost of maintenance and professional care in civilian hospitals should not exceed that of governmental hospitals, the need of which will gradually disappear in the course of time.

The American Medical Association had also been working along the line set forth in this article, and it is hoped that the various groups cooperating with each other may be able to obtain the desired results.

It is, moreover, the duty of every physician and hospital administrator to place these facts before the Congressmen representing them in Washington.

The following resolution was adopted at the Annual Meeting of the Colorado Hospital Association in Colorado Springs:

WHEREAS, The Colorado Hospital Association in no manner disapproves of the program of the national government in hospitalizing and providing medical care to the veterans who have served in the United States military forces, including cases of disability other than that attributed to the hazards of service; and offers no protest against the hospitalizing of such cases in the already established government hospitals, either under the veterans' or military control; and

WHEREAS, It is known that, in order to carry on such a program, provision must be made for greater bed capacity than is now available in existing veterans' and military hospitals, but

WHEREAS, There are enough beds available in the already existing first-class, approved, civilian hospitals to provide adequately facilities for the hospitalization of the veterans who at present cannot be cared for in the already established veterans' hospitals; and

WHEREAS, These civilian hospitals are willing to care for these said veterans in their home communities, at an expense to the government less than the cost of building, equipping, and maintaining the proposed additional hospitals;

BE IT THEREFORE RESOLVED, That the Colorado Hospital Association protest against the further construction and establishment of veterans' hospitals, and request that the veterans who are to be treated, for whom there are not

PENCOL
DRUG STORE

Denver's Leading Druggists

504 E. COLFAX YOrk 8300

BIOLOGICS—OXYGEN
PRESCRIPTIONS

At Night Call FRanklin 0041-W

COLORADO PHOTO COMPANY

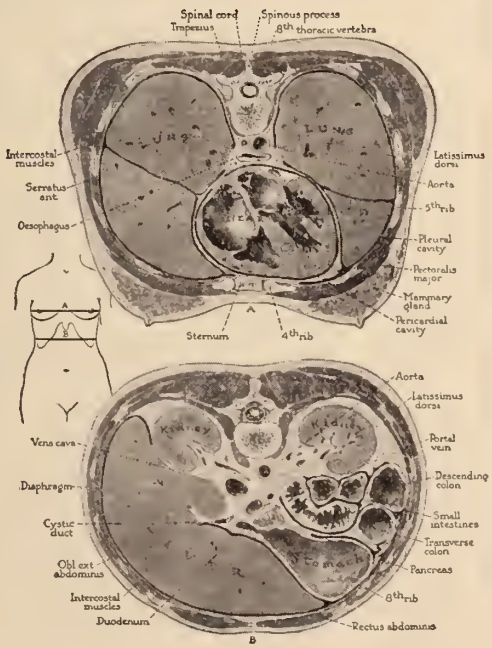
Commercial and Art Photographers



QUALITY AND SERVICE
"We Never Miss"

1822 WELTON ST. MAin 5671
DENVER, COLO.

ANATOMICAL STUDIES



CROSS-SECTIONS THRU FEMALE FIGURE
(Key figure at left shows levels)

for the Practitioner

A Set of Anatomical Studies (in book form) furnished to physicians on request —upon receipt of 20c to cover mailing costs.

CAMP
TRADE MARK

Physiological Supports Scientifically Designed

S. H. CAMP & COMPANY
Manufacturers
JACKSON, MICHIGAN

Chicago
1056 Merchandise Mart

New York
330 Fifth Ave.

London
252 Regent St. W.

TEXAS SUNBEAM ORCHARDS
McReynolds Estates
Dallas, Texas Mercedes, Texas
* * *
Wishes to furnish your Family and Friends
Your Patients and Hospitals
PINK AND GOLD GRAPEFRUIT
ORANGES TANGARINES
Fresh and Delicious
SWEET without SUGAR
Shipped anywhere in U. S. A.
Prices range from $3.00 to $10.00
Write for Folders to
Mrs. John O. McReynolds,
Mercedes, Texas

Correct Putrefaction
by Providing the Right Soil
Cooperate with Nature—
combat intestinal putrefaction—by using
Lacto-Dextrin
(lactose 75 per cent—dextrine 25 per cent)
The food that promotes the growth of the normal protective germs.
The Battle Creek Food Co.
Battle Creek, Michigan



MAin 7318 *Rosella Wiley*

The
THERAPEUTIC
BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

available beds in the already established government hospitals, be assigned to the various first-class civilian hospitals for their hospital care;

BE IT FURTHER RESOLVED, That the Colorado Hospital Association heartily endorse the resolution of the American Hospital Association relative to this subject;

BE IT FURTHER RESOLVED, That copies of this resolution be sent to all parties interested in the hospitalization of these veterans.

ECONOMIES TO MEET THE PRESENT DEPRESSION IN HOSPITALS

WALTER G. CHRISTIE*
DENVER

This paper will not attempt to offer a cure for the depression but will make a few suggestions to help solve some of the economic problems that confront the private hospital. Conditions which have developed as a result of hard times must be faced by us in the light of our own program. We must keep our eyes to the front instead of too much to the rear, or we will be confused. If we are continually looking into the rear vision mirror instead of the windshield, we will surely come to disaster.

Depressions, or compressions as someone has called them, are not as bad as they appear to be, but rather helpful at times because they compel us toward introspection. They are in the main based upon fear, and if we tear from them their "Hallowe'en Garb" we will see they are only disturbing elements.

When times are good and there are no clouds upon the horizon, we are prone to overbuy, overexpand, overindulge—lulled to sleep, so to speak, by the sedative of easy times. When the economic clouds appear, we are frightened by the flash of lightning and the roar of thunder. Instead of being alarmed, let us critically prepare for this storm of depression. We should carefully look over our house to ascertain if the roof leaks, if the windows are tight, if the basement is stormproof. If we find conditions satisfactory we need not fear the storm. Someone has said, "The depression, that a lot of us are in, is a rut."

*Superintendent Presbyterian Hospital, Denver.

Office Phone M. 321 Res. Phone M. 4422-R

GEO. LOXAM

Surgical and Invalid Supplies

20 Independence Bldg.
COLORADO SPRINGS, COLO.

Physicians and Surgeons' office supplies, Surgical Braces and Supports, Operating Tables, Surgical Dressings, Enamelware, Rubber Goods, Laboratory Supplies.
Instruments Repaired
Trade discounts to Physicians, Surgeons

Rose Ballinger, Mgr.

U. S. MULTIGRAPHERS

Multigraphing
Mimeographing *Addressing*
Folding *Mailing*
Typing

711 Security Bldg. Telephone TA. 3003

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
650 Chambers Bldg., Kansas City, Mo.

The proper flowers for every occasion

EVERETTE R. BROWN

FLORIST

Cut Flowers, Plants, Designing

615 16th St. MAin 4427

COLVIN BROTHERS

MEDICAL BOOKS

Ph. MA. 3866. 221 Republic Bldg., Denver

NEW BOOKS:
Marriott—Infant Feeding
Ballenger—Ear Nose and Throat
Buckstein—Peptic Ulcer X-Ray
Crossen—Diseases of Women
Sante—Chest X-Ray

A Doctor's Home Should Be Up-to-Date

ELECTRICALLY

H. G. REID

IS YOUR SPECIALIST in Electrical Contracting, Repairing and Fixtures

317 14th St. Phone MAin 2303
Denver

WHY NOT PUT

Western Electric

on the Staff of Your Hospital?

RADIO AT EACH BEDSIDE

R. C. MULNIX

Radio Specialist
1453 Court Place, Denver
Authorized Sales Engineer

for Quality
Zinc Etchings
Color Plates - Half Tones
Seeleman-Ehret
Photo Engravers
Tabor 2701 SE 1950 Champa Street
Denver Colorado

"Say it with flowers"

Park Floral Co.

Phones M. 1713-1714 1643 Broadway

Advertising space in Colorado Medicine is worth just what you make it. When you buy from firms advertising in Colorado Medicine you protect yourself against questionable products and you increase the value of this, your own Journal, to its advertisers. If a product is not advertised in Colorado Medicine it may have been declined in order to protect you. Remember this, and use these pages as your buy-

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO-ENGRAVERS AND MAP MAKERS
KEYSTONE 5634
-830- 18TH ST.
DENVER, COLO.

It is quite true that the superintendent who has built his program around a large endowment income and has seen it dwindle to nothing has an herculean task to perform. This paper has no suggestions to offer for this phase of the economic problem. Rather the purpose of this paper is to offer some practical suggestions for economy in hospital operations.

The first emphasis is placed upon a co-operative and interested personnel. The three fundamentals of organization, "organize, deputize, supervise," will create a co-operative and interested personnel. Deputize and supervise deserve considerable stress. As boards of trustees repose the utmost confidence in the ability of the hospital executive, giving him considerable authority and latitude, so should he place in his department heads the same degree of confidence. This attitude on the part of the director will create a mutual trust in each other and loyalty to the institution they serve. Enthusiasm for the work and for solving the many problems will be encouraged.

There are many places in the hospital to occupy the interest of the superintendent and the second emphasis is on the heating plant, which offers a fertile field for economies. This department is vital to the institution and a thorough investigation might reveal many interesting things.

Combustion efficiency in plants of every type, regardless of the kind of fuel used, depends upon the use of the correct ratio of air to fuel. Excess air is the chief cause of fuel-burning losses. By analyzing flue gases it is possible to tell instantly and accurately how much excess air is being used and what percentage of fuel is being wasted. Every power plant should have a portable combustion test set. It will tell whether combustion is complete or if there is combustible carbon monoxide passing off with the flue gases and how much; whether an excess of air is entering the furnace and what draft should be employed for best efficiency. A test of this kind will produce these results:

(Continued on Page Thirty-two)

STEADY-SAFE REFRIGERATION



Simplified Refrigeration

With the

SERVEL HERMETIC



THE WINTER-WEISS CO.

10 So. Broadway Denver

EXPERT REFRIGERATION SERVICE

SHELVING
CABINET WORK
REPAIRS

At your home or office.
One hour or several days.
Expert work.
Reasonably priced.

TAKE-APART SHELVING CO.

W. E. June, Mgr.

22-24 E. First Avenue TAbor 7752

We have at various times employed Mr. June to install shelving equipment, both at our place of business and at the house of the writer.
His workmanship has been excellent and prices very reasonable.

(Signed) W. A. HOVER.

Loveland Hospital and Clinic
Inc.

MEDICAL AND SURGICAL SERVICE

428 Lincoln Avenue

LOVELAND, COLORADO

W. P. Gasser, M.D., *Pres.*
J. J. Gasser M.D. *Vice Pres.*
Alma Becker, *Sec.- Treas.*
Ruth Garland, R. N.
Gertrude Blevins, *Lab.Tech.*

Maintaining the highest standards of ethical service in a community of growing importance as a medical center.





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

Montclair Sanitarium

A HOSPICE FOR THE ELDERLY

BEAUTIFULLY located near Colorado Woman's College. On the outskirts of Denver. Automobile highways and street cars near by, yet not obtrusive.

American home atmosphere. Devoid of objectionable institutional features.

We invite inquiries as to rates, facilities, etc., from qualified ethical physicians.

Corra Larson Reed, R. N., Superintendent

1690 QUINCE ST. DENVER, COLO.

THE ROBINSON CLINIC

Melancholia is a common condition found in adults of all ages. The chief symptom is a feeling of unworthiness and lack of desire to continue with the struggles and problems of life. Women, at the menopause, frequently resurrect some overt act committed early in life and dwell upon this, until it is magnified into an unpardonable sin. They have delusions that other members of their family are being punished for this sin.

Younger adults are seldom affected with the above formed delusions, but have just as great a sense of their own unworthiness, but can seldom give such a clear and lucid account as to the cause.

All forms of melancholias and depressions must be guarded closely against suicide. Their own statements must not be given credence, because their mental reactions change so quickly, they may deny any thought of self-destruction one minute, and the next, be carefully planning to take their own life. Homes and hospitals offer so many opportunities for suicide, we believe the only safe place for these unfortunates is in a hospital with special equipment to handle these cases, and with carefully trained and watchful attendants; they must be constantly supervised.

Treatment consists of removing the cause, in addition to the above supervision. Careful examinations must be done, to determine the cause. Gland extracts, sedatives, hydrotherapy and psychotherapy and specific treatment produce the best results.

G. WILSE ROBINSON.



CURTISS-WRIGHT FLYING SERVICE

Nervous and Mental Diseases
G. Wilse Robinson, Jr., M.D.
Assoc. Medical Director

G. Wilse Robinson, M.D.
Medical Director
1432 Professional Bldg.
8100 Independence Road
Kansas City, Mo.

Drug and Alcohol Addiction
Paul A. Johnson, M.D.
Internist

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

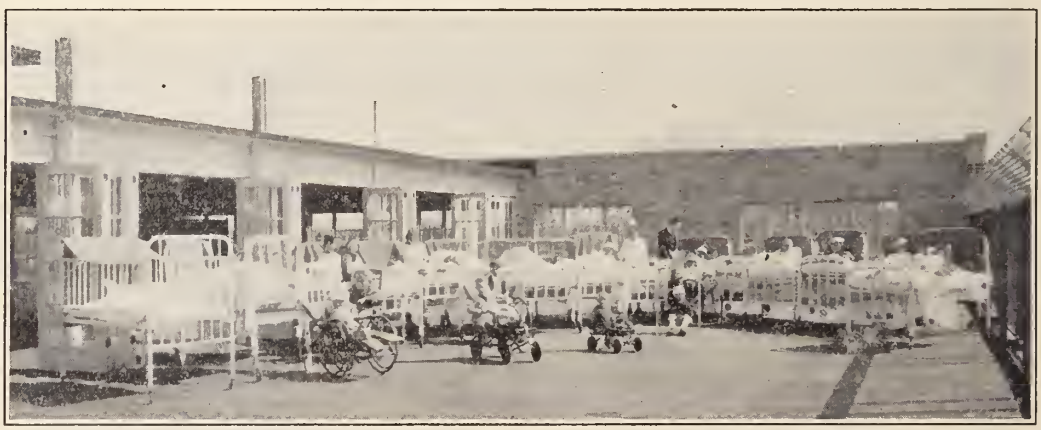
Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



A Corner of the Sixty-Five- Bed Heliotherapy Solarium

THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course

SAINT LUKE'S HOSPITAL

Under the Supervision of the Protestant Episcopal Church

MEDICAL, SURGICAL, OBSTETRICAL ORTHOPEDIC and PEDIATRIC SERVICES

225 Beds—32 Bassinets

Fully Equipped for Scientific Diagnosis and Treatment
Roentgenologist and Pathologist Constantly Available for Consultation

Established 1881 **Pearl St. at Nineteenth**
Denver



Beautifully situated on the crest of a hill overlooking Colorado Springs. Admirably equipped for medical, surgical and maternity patients. Battle Creek methods.

Devoid of any mercenary characteristics, Crestone Heights Sanitarium has never refused treatment to the poor or unfortunate.

For this reason we are constantly enlarging our facilities. Funds are always needed and must come largely from our friends and through the helpful efforts of the medical profession. Inquiries from physicians who may desire to assist through contemplated bequests are welcomed.

CRESTONE HEIGHTS SANITARIUM

225 West Brookside Avenue Phone Main 687

COLORADO SPRINGS, COLO.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING



THE AGNES (PHIPPS) MEMORIAL SANATORIUM

An endowed institution for the treatment of tuberculosis. Modern methods used—heliotherapy and pneumothorax when indicated. Clinical and X-Ray laboratories. Each case given careful individual study by a resident medical staff. The sanatorium is approved by the American College of Surgeons. Write for illustrated folder and application blanks.

RATES $13.00 TO $30.00 PER WEEK

G. Walter Holden, M.D., F.A.C.P., *Medical Director and Superintendent*

DENVER, COLORADO



WOODCROFT HOSPITAL—PUEBLO, COLORADO

Woodcroft Hospital was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also speclalize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

H. A. LAMOURE, M.D., Superintendent
CRUM EPLER, M.D., President F. M. HELLER, M.D., Vice-President
H. T. LOW, M.D., Secretary



THE PRESBYTERIAN HOSPITAL

Modern fireproof building—Telephone, hot and cold artesian water, lavatory in every room—Light, airy rooms—Reasonable rates—Every facility for scientific diagnosis and therapy—Fully equipped pathological and x-ray laboratories and dietetic department.

East Nineteenth Avenue and Gilpin Street Denver, Colorado

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. SOuth 5583

THE MEDICAL PROFESSION

is urged to investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $70,000,000 in Resources

We insure only ethical practitioners

DAVID JACOBS, Mgr. C. B. TYLOR, Asst. Mgr.

316 Cooper Bldg.
DENVER, COLORADO

UNITED STATES FIDELITY AND GUARANTY COMPANY

Baltimore, Maryland

Rubber Sheeting
Operating Cushions
Surgeons' Gloves
Air Cushions
Tubing
Surgeons' Aprons
Ice Caps
Throat Bags
Syringes all varieties

For the Best Service on Hospital Supplies, Call on

Denver Rubber Sundries Co.

Distributors United States Rubber Co.

Mail or Phone Orders Promptly Filled

MAin 1620 Denver 1643 Arapahoe St.

THE MOUNTAIN OPTICAL COMPANY DENVER

MOUNTAIN OPTICAL COMPANY

Not the Largest Manufacturers but More Careful Than Most

508 EIGHTEENTH ST. DENVER, COLO.

MIRACLE

A Perfect Cleansing Compound

RECOMMENDED AS THE IDEAL CLEANSER FOR HOSPITALS, SANITARIUMS AND INSTITUTIONS. IT DISINFECTS AS IT CLEANS. POWERFUL, YET NON-INJURIOUS. FOR WALLS, FLOORS, METALS, FABRICS, DISHES, LABORATORIES AND EVERY POSSIBLE CLEANSING PURPOSE WHERE GREASE, DIRT OR GERMS ABOUND.

Liberal Trial Sample Packages Will Be Sent Gratis to Any Institution or Doctor Upon Request.

MIRACLE PRODUCTS AND MFG. CO.

1255 SOUTH PEARL ST.

PHONE SOuth 4082 DENVER, COLO.

"THE MEASURE OF SUCCESS—
SERVICE TO MANKIND"

Intravenous and Subcutaneous Products

by

LANE LABORATORIES, INC.

PRICE LIST ON REQUEST COLORADO SPRINGS, COLO.

WHY SUFFER longer with foot ailments when you can secure quick relief and often permanent cure by our system of proper chiropody and foot and shoe fitting service, thereby reducing greatly the cause of your various foot troubles?

This service cheerfully rendered at our

Corrective Footfitting Shoe Store and Chiropody Office

735 AND 737 E. COLFAX PHONE YOrk 3304

Corrective Shoes for Children and Adults, Normal and Abnormal Feet

(a) Ordinary milks form a hard curd often regurgitated or eliminated.



(b) Soft-curd milk, being very tender, is easily digested and assimilated.

STOMACH CURDS

SOFT-CURD MILK

IS GENUINE "SPECIAL BABY MILK"

And will help solve some of the problems confronting you in establishing the diet of DELICATE INFANTS

Natural whole soft-curd (Holstein) perfectly Pasteurized milk from healthy isolated cows individually tested for their ability to give milk which forms a very soft easily digested curd produced in accordance with methods developed and instructions given by Dr. R. L. Hill, human nutritionist, U. S. Department of Agriculture. Endorsed by the Medical profession and dieticians for feeding infants, invalids, convalescents and cases of weakened digestion where milk is prescribed.

Upon request, descriptive literature and a generous sample of our soft-curd milk will promptly be sent to any member of The Colorado State Medical Society.

THE LEAGUE DAIRY

933 BANNOCK ST. KEystone 3297

DFC
is
HSH

WHEN making up your 1932 contracts for hospital sundries, it is an excellent plan to remember that DFC is "Hospital Supply Headquarters," and that here you select from really complete lines. Here, none of the elements of a contract advantageous to you are missing.

Bacteriological Department

THE DENVER FIRE CLAY COMPANY
DENVER DFC COLO. U.S.A.
BRANCHES AT SALT LAKE CITY, EL PASO, AND NEW YORK

ECONOMIC TO MEET THE PRESENT DEPRESSION IN HOSPITALS

(Continued from Page Twenty)

Improved method of handling fire, improved draft regulation, reduction in air infiltration, and indicate needed changes in furnace equipment. A chemical analysis of the ashes will no doubt show an unnecessary amount of fine unburned coal which may be due to too large sized grates, or to the wrong kind of coal, or to both. Leaky pumps and steam lines are a source of waste. Delayed repairs become costly. There is no valid reason why high pressure steam for sterilizing should be kept in the lines during the night. If the routine sterilizing is done, steam should be shut off by 9 p. m., to be turned on when needed and off when thru.

Another source of loss is the waste in lighting. Quite often large bulbs are used where small ones will suffice. The difference in cost of operation between a 40 watt bulb and a 100 watt bulb burning 24 hours is 9c per day or $2.70 per month. Multiply this by the number of bulbs and the amount of waste is obvious.

The laundry also presents a large problem to the hospital executive, for linen is one of the costly items of an institution running into several thousand dollars a year. Washing of the linen and the elements that go into the washing should be carefully watched. Strong caustics cannot be condemned too harshly. A good mixture of soap and other necessary ingredients is important for good work. Well washed and well rinsed garments will be white.

Labor is another large item in the hospital budget, for slow workers are a handicap to those who are faster as well as to the hospital, especially in the kitchen and housekeeping departments. It seems better to choose the more active help at a larger salary and drop the sloths. In this way more will be accomplished and economy practiced. Flexibility in the nursing group, such as shifting to wards of greater activity, will give the necessary amount of service to the patient without increase in personnel.

The
C. C. Gill Engraving Co.
506 Barclay Block Tel. MAin 3046
Denver, Colo.

Engravers of
Correct stationery for the Medical Profession
Professional Cards
Letter Heads and Envelope
Opening Announcements
Removal Notices

CLEAN CUT
QUALITY
ENGRAVING

Also high-class raised-letter printing of above items.

MANUFACTURERS OF STEEL ENGRAVED GREETING CARDS

Member, National Engraved Stationery Manufacturers' Association

ARTHUR L. BALDWIN
Certified Public Accountant

TAX COUNSELOR

Fontius Building, Denver TA. 1444



CHERRY CREEK DRIVE
AT E. VIRGINIA AVE.

Pleasure Horses
Three ana Five-gaited, For Hire

INSTRUCTION IN RIDING

We pay special attention to children.

Horses Boarded and Trained

RIDING ARENA

EAST SIDE
RIDING ACADEMY

H. V. Scott, Mgr.
YOrk 2235

PHYSICIANS' EXCHANGE

Salaried appointments for Class A physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoes National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member the Chicago Association of Commerce.

CARL RUBIN

Accountant and Auditor

announces the removal of his office to

203 Republic Building

and offers his services to you in opening and closing books, establishing systems, part-time bookkeeping, etc.

Special attention given to Income Tax Returns

Compensation reasonable, either by the hour or an agreed monthly rate.

References furnished on request

I am prepared to make up your monthly statements at my office, and mail them, if desired.

Notary Public KEystone 3435

Printers to the Physician

THE LOGAN PRINTING CO.

E. J. Huling, Proprietor

Has served a goodly clientele of Physicians and Surgeons for many years. For their convenience it has established an office at

203 REPUBLIC BUILDING

and will be pleased to serve you also. Will be glad to call on you at your convenience. Telephone us, KEystone 3435.

Patronize Our Advertisers

While these few suggestions are made for economies, the hospitals must meet another great problem in this depression—that is to increase the income. They are restricted in their efforts Unlike commercial establishments they cannot seek new business directly; they must wait for it to come through their own staff. Will opening our laboraories and X-ray departments to the outside field increase business? This procedure will place us in competition with the profession whose members support our hospital. Will low flat rates on tonsillectomies and maternity cases increase business? The writer does not think so. If we could push our sales as commercial concerns do and create a large volume, then reduced rates might work, but on account of the ethical restrictions placed on hospitals, it is doubtful if enough increase in business could be secured to justify the cut, except on the grounds of charity.

The spread between earnings and expenses should be lessened. This can be brought about by reducing bad debts or involuntary charity. Discounts on hospital bills should be checked carefully and restricted, for everyone who has any relation with the institution wants a reduction. This burden is growing so large that there is great danger of submerging us with a great loss in earned income.

A comprehensive plan for collections should be a part of the business program of every hospital. When one enters as a patient he or she should receive a printed slip stating hospital rules, charges for various services, etc. They are entitled to this information—especially the service charges. The admission office should tactfully call attention to the time for payment of accounts, and if deferred payments are requested, arrangements should be made at once with the properly designated person. Statements should then be rendered according to rules. If the patient is delinquent in the first payment, the cashier's office should ascertain the cause. When the patient leaves the hospital he or she should be accompanied by the nurse to the cashier's of-

YOUR HEALTH--- OUR FIRST CONSIDERATION

Milk is an essential food in the diet of practically every person. When you buy "Windsor-Meadow Gold" you are confident of receiving the best. Our scientifically equipped plant assures you of the utmost in quality and cleanliness. Drink milk to secure the "Sunshine Vitamin D."

Windsor-Meadow Gold

What's New for 1932? . . .

THE "PELHAM"

WITH THE NEW PATENTED

"BAL-GUARDS"

The sensation of all Rimless Mountings, Flexible, but retaining the lens axis in line. And comfortable, ah, it's perfect.

YOUR RIGGS REPRESENTATIVE WILL GLADLY SHOW YOU!

RIGGS OPTICAL COMPANY

Chicago Denver Pueblo San Francisco

There's a Riggs Office Conveniently Near You



When decalcification occurs during pregnancy

IT IS important to warn expectant mothers of the danger of calcium deficiency during pregnancy. For unless there is sufficient calcium to take care of the developing *foetus*, there will be a *withdrawal of calcium from the maternal structures* —resulting, among other things, in rickets, soft bones, and carious teeth.

During this period Cocomalt is highly valuable for two reasons: It contains Vitamin D which mobilizes calcium, and it is mixed with milk which in itself is an essential source of calcium.

Recommend this delicious chocolate flavor food drink to expectant mothers. Not only does it contain Vitamin D—not only does it add 70% more nourishment to milk—not only is it tempting to finicky appetites—*it supplies extra body-building proteins, carbohydrates and minerals so essential to the mother and to the coming child.*

Recommend Cocomalt to your young patients, too. They'll love it. Cocomalt is high in concentrated food value—low in cost. At grocers and leading drug stores—½ lb., 1 lb., and 5 lb., family or hospital size.

Free to Physicians

We will be glad to send you, without obligation, a trial-size can of Cocomalt. Use this coupon.

Cocomalt

DELICIOUS HOT OR COLD



ADDS 70% MORE NOURISHMENT TO MILK

R. B. DAVIS CO., Dept 43-A Hoboken, N. J.
Please send me, without charge, a trial can of Cocomalt.
Name _____
Address _____
City _____ *State* _____

fice for settlement. If time payments are granted, a note should be taken. This will help in future collections, for it is an acknowledgement of a debt and saves the creditor the task of proving the account. It is easier to collect in this form than an open account if the debtor is out of the state.

A "follow-up" man or woman should be employed whose duty it is to contact delinquent debtors, for this has several advantages. If they are in poor circumstances through loss of work, sickness in the family, or other distressing conditions, the collector can report to the hospital so they will be saved embarrassment from future pressure. If on the other hand they appear not to be interested in paying their bills and deserve harsher treatment, then steps can be taken at once to protect the hospital from loss. Then there are others who can pay only a dollar or two a week. It is a burden for them to make weekly visits, but the collector can get these accounts which would ordinarily become very delinquent. If any delinquent debtor should show plainly that he will not pay without pressure, then there should be no hesitancy in placing the account in the hands of a reliable collection agency. Increased collections will come to the hospital, and with this plan, together with economies, the spread between earnings and expenses will be cut down.

If we look upon this depression as something to shake us out of our lethargy and realize the fact that changes must come, that we must be ready for them, that we must keep our eyes and ears open to every new possibility, that we must invent new ways of doing things—then, as Julius Klein says, we have gained by the depression and will have pulled ourselves out of the status quo complex.

Editor's Note: Mr. Christie's paper deals with a subject that is of paramount interest to every hospital administrator who is attempting to balance his budget, due to the decreasing revenue and the increasing demands made upon the hospitals during these times of depression.

It would be well for every hospital administrator, after reading this article, to take stock of the practices effective in his own hospital.

The depression has taught us a great many principles of economy. These lessons have been bought at

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

E. L. GRIFFEY

Successor to
Robt. Gibson, Griffey and Company
Wholesale Woolen Merchants

Denver's Only Popular Priced High Class
TAILOR

We Make Clothes from $30.00 to $65.00

Our $50.00 Business Suit Is a Wonder

The suits and overcoats that sell for $65.00 cannot be surpassed anywhere in Quality, Workmanship and Price.

See for yourself the excellent values we have to offer you.

We Are Conveniently Located
1509 TREMONT

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado



Nature Made It!

ORIGINAL MANITOU Sparkling Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

a tremendous price, and it is hoped that when conditions return again to normalcy we will continue to practice the economies we have established under the stress of the present period.

THE COMMUNITY'S PROBLEM OF NONRESIDENT, INDIGENT PATIENTS BEING RELEASED FROM OUR NATIONAL SANATORIA

H. SCHWATT, M. D.*
DENVER

One of the paramount problems at the present time is the care of the indigent individuals of our community. Naturally, those of us who are engaged in health work are vitally interested in the medical care necessary for these individuals. Any factor which increases the number of indigent sick is, of course, a matter of concern.

Dr. Schwatt, in behalf of the national sanatoria located in Colorado, has answered very emphatically the criticism that their ex-patients are contributing to the already staggering burden of indigent patients, especially those suffering from tuberculosis.

The Editor invites comments on this subject.

It is especially timely during this period when communities are taxed to the utmost to contribute to the relief of the large number of their unemployed citizens to consider the burden of the nonresident, indigent consumptive.

For many decades Colorado has been the Mecca of an untold number of consumptives from every part of the United States. Multitudes of them have come here, woefully ignorant of their condition and pitifully misinformed of their prospects for recovery, in the hope that within a few weeks or months at the utmost the pure air and sunshine of Colorado would restore them to health and economic productivity. Great numbers have come with inadequate means which become rapidly exhausted while the hope of becoming self-supporting gradually fades away with the realization of their true state of health and inability to obtain employment. Sooner or later many of these uninvited health seekers unquestionably fall a burden upon the community.

It is obvious that the total extent of this burden is difficult to estimate and cannot be even approximated in figures without an exhaustive study involving considerab'e

---

*Medical Director and Superintendent, Sanatorium of the J. C. R. S.

TELEPHONE KEYSTONE 8428

QUALITY

F. W. Berbert

BERBERT

Julius Berbert

FIRST

The latest patterns of surgical instruments always in stock.

The most modern manufacturing plant in connection, for special work and repairs of all instruments.

ORTHOPAEDIC APPLIANCES

Elastic Stockings Trusses
Abdominal Supporters

GEO. BERBERT & SONS

228 16th St., Opposite Metropolitan Bldg.

MERCUROCHROME

220 SOLUBLE

in

OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.

Baltimore, Md.

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

"STORM" The New "Type N" Storm SUPPORTER



"Type N"

With long laced back and low extension upon hips; The reinforcing band attached in front at median line, also fastened in back. Hose supporters instead of thigh straps.

TAKES PLACE OF CORSETS

Gives perfect uplift and is worn with comfort and satisfaction. Many variations of the "Type N" Belt provide support in Ptosis, Hernia, Obesity, Pregnancy, Sacroiliac Strain, etc.

Each Belt Made to Order
Ask for Literature

KATHERINE L. STORM, M.D.
Originator, Owner and Maker
1701 Diamond St. Philadelphia, Pa.



THE DOCTOR THE NURSE THE PATIENT

NO ONE is immune to perspiration and the discomforts and social implication that go with it, for perspiration often leaves in its wake an odor quite unpleasant.

Here is an opportunity for cooperation between the doctor, who prescribes the remedy, the nurse, who applies it, and the patient who may need it. The remedy is simple enough and safe.

NONSPI

(AN ANTISEPTIC LIQUID)

checks the perspiration and prevents the odor, too. It needs to be applied only once or twice a week under the arms and to those parts of the body not exposed to adequate ventilation. Trial supply gladly sent to physicians.

YES, I'd like to try NONSPI. Please send me a free trial supply.

Name .....

Address ..... *City* ..... *State* .....

THE NONSPI COMPANY, 117 West 18th Street, New York City

time and organized effort. I shall, therefore, have to confine myself to the topic of my paper and discuss to what extent the national sanatoria have been a factor in adding to this burden.

I can speak authoritatively only about the institution which I represent, namely, the Sanatorium of the J. C. R. S., and to some degree about the National Jewish Hospital.

It has always been the policy of these institutions to urge released patients to return to their former homes unless they have a source of definite and adequate income and can establish themselves in Denver without becoming public charges.

Out of 1,102 patients who entered the J. C. R. S. since 1925, not more than about 6 per cent remained in Denver. A careful survey of these ex-patients by our Social Service Director, Mr. S. B. Kaufman, in connection with the records of the Central Jewish Aid Society, shows that most of those who remained in Denver are self-supporting. Some of them are ex-patient employees of the J. C. R. S. and of the N. J. H.

In order that none of the ex-patients of the J. C. R. S. might at any time become public charges and a burden to the Denver community, we entered into an agreement with the C. J. A. S. in 1917 by which the latter undertook to look after all indigent patients, married or single, who remained in Denver after their discharge from the Sanatorium in return for a subsidy to the C. J. A. S. of $400.00 a month from the general funds of the J. C. R. S. A similar arrangement was made and exists between the N. J. H. and the C. J. A. S. regarding their ex-patients. The C. J. A. S. has, today, not more than ten dependent families of ex-patients of the J. C. R. S. whose maintenance, however, is fully paid for by the J. C. R. S. During the last thirty-seven months, for instance, the C. J. A. S. expended $14,883.04 on our ex-patients who had become dependents. During this period the J. C. R. S. contributed to the C. J. A. S. $14,800. Some months the C. J. A. S. receives more from our organization than it spends on our ex-patients. Similar conditions and figures apply to the N. J. H.

SPECIAL OFFER

DOCTOR: If you are one of the many that have wanted an Ultra-Violet lamp, that would produce the results which you have desired and at a reasonable cost for the lamp, we can offer you the most powerful lamp on the market at a surprisingly low price. We are disposing of our rental lamps which have seen very little service and are guaranteed the same as a new lamp.

We also have some exceptionally good values in used X-Ray Machines. You will find that it will be well worth your while to investigate this offer. We will be pleased to have you visit our show-rooms and examine the above equipment. We will give especial attention to mail inquiries and will quote prices on demand.

MUCKLE X-RAY COMPANY

1632 Court Place, Denver, Colo.

CHRYSLER OFFERS

in PRICE as in PERFORMANCE—

AN OVERWHELMING ADVANTAGE

Chrysler dealers are offering the most brilliantly performing cars in Chrysler history at by far the lowest prices at which such quality and performance can be Approached.

PRICES RANGING FROM $700 TO $4,000

CULLEN-THOMPSON MOTOR CO.

Broadway at Tenth KEystone 5171

PREVENTS RICKETS AND SPASMOPHILIA

S M A

Ever since 1914, when S. M. A. was first developed as a diet compound adapted to breast milk, it has always contained enough cod-liver oil to make it anti-rachitic and anti-spasmophilic. The kind of food constituents and their correlation also contribute to prevent rickets and spasmophilia.

MAY WE SEND YOU SAMPLES ?

S. M. A. was developed at the Babies and Childrens Hospital at Cleveland, and is produced by its permission exclusively by

S.M.A. CORPORATION
CLEVELAND, OHIO

Charles Hair Stores,
Inc.

MANUFACTURERS OF HIGH CLASS HAIR GOODS FOR LADIES AND GENTLEMEN

Latest models in Toupes and Wigs
All branches of beauty service.

410 SIXTEENTH ST., DENVER
KEystone 8814

In other words, the Denver community which through its Community Chest contributes a yearly allowance to the C. J. A. S. to take care of the local Jewish poor does not spend any part of this subsidy on ex-patients of the J. C. R. S. or the N. J. H.

So much for our Jewish ex-patients. Regarding our Gentile ex-patients, we have made inquiry of the City Charities, the Denver Tuberculosis Society, and the Colorado Tuberculosis Association, who state that they cannot cite any non-Jewish ex-patients of the J. C. R. S. who have become charges on the community.

The J. C. R. S. and the N. J. H. and the Ex-Patients' Home are strictly charitable and nonsectarian institutions. They are admitting a good many indigent patients, Jewish and Gentile, who come to Denver of their own accord, and also many old residents and citizens of Denver. Some of the former are so ill that they cannot be returned to their homes. A great many of both classes would become a burden on the Denver community or other communities in Colorado. From this standpoint the Jewish institutions are saving thousands of dollars to these communities.

A few words about the National Jewish Childrens' Home. This institution receives an allowance from the Community Chest to maintain local children, but it has voluntary subscribers throughout the United States and raises enough money from outside of Denver to take care of children who come here from other communities.

From the above, it will readily be seen that not only do the national Jewish sanatoria jealously safeguard that their discharged patients do not become a burden on the Denver community, but that they contribute from their funds for the maintenance of those who have become dependents after their discharge from these institutions.

However, even if it were true that the Denver community were compelled to spend a few thousands of dollars a year on the care of indigent ex-patients discharged from the national Jewish sanatoria, it should be

J. E. BREUKLANDER
Phone SOuth 6564-M

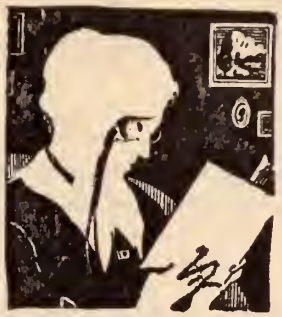
GEORGE DITTMER
Phone YOrk 9284-W

Colorado Artificial Limb Company, *Inc.*

SUITE 49 GOOD BLOCK
(Take Elevator)

Telephone MAin 2866

1557 Larimer Street, Denver, Colo.



PHOTOGRAPHS
The Best at Reasonable Prices
Ph. KEystone 4450 for Appointment

La Fayette Fults Studios
2nd Floor America Theatre Bldg.
16th and Curtis Streets, Denver

THE DOCTOR APPROVES

Gentle Riding Horses

Under intelligent supervision.
Rates that speak for themselves

2 hours $1.50
Overtime 50c per hour
Private lessons 3.00
Two at same time..... 5.00
Instruction Free.

When you prescribe horseback riding for your patient, recommend the old reliable outstanding academy.

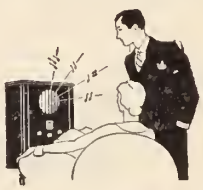
WENTWORTH'S



Established 25 Years

Aboard the ARISTOCRAT

Luxury!



Radio Reception

In addition, the Lounge Car offers the comforts of detached chairs, inviting divans, observation platform enclosed in glass, writing desk, card tables, a library of current periodicals, late newspapers, soda fountain and a buffet serving soft drinks, sandwiches, coffee, smokers' supplies.

The Aristocrat
(*NO EXTRA FARE*)

Lv. Denver . . 4:00 p. m.
Ar. Omaha . . 6:30 a. m.
Ar. Chicago . . 7:45 p. m.



Burlington Route

RESERVATIONS

901 Seventeenth St. Phone Keystone 1123
S. R. Drury, General Agent
F. W. Johnson, Ass't General Agent
Denver

emphasized that these institutions are spending annually about a million dollars with Denver merchants and thereby add to the wealth of Denver.

From a medical standpoint, also, the indigent ex-patients of the national Jewish sanatoria do not fall a burden upon the community. Both the J. C. R. S. and the N. J. H. conduct out-patient departments where free medical treatment is given to all needy ex-patients. Both institutions admit ex-patients who suffer a breakdown as emergency cases ahead of all other applicants on the waiting list. I am not prepared to say how many of these ex-patients enter the municipal tuberculosis wards. I believe, however, that the number is extremely small. In the overwhelming majority of cases they are more or less immediately admitted to the national Jewish sanatoria.

IMMATERIA MEDICA

A gentleman slipped on the stair of the subway and started gliding to the bottom. Half way down he collided with a lady, knocking her off her feet, and the two continued the journey together. After they had reached the bottom, the lady still dazed, continued to sit on the gentleman's chest. Looking up at her politely, he said: "Madam, I'm sorry, but this is as far as I go."

* * *

Have you heard about the Scotchman who was building a house and telephoned to the Masonic Temple for a couple of Free Masons?

* * *

Club Servant: "A lady is in the lobby saying that her husband promised to come early."

Several Card Players (jumping up hurriedly): "Excuse me, gentlemen."

* * *

She: "You pride yourself on being able to judge a woman's character by her clothes. What would be your verdict on my sister over there?"

"Insufficient evidence."

* * *

A Bishop had been speaking with some feeling about the use of cosmetics by girls.

"The more experience I have with lipstick," he declared, warmly, "the more distasteful I find it."

* * *

Impatient man (outside telephone booth): "Can I help you find the number you want?"

Young Woman (sweetly): "Oh, I don't want a number. I'm looking for a pretty name for my baby."

* * *

We heard recently about the Scotchman in Detroit who took off his pants and threw them out the window when he heard a boy below shout, "Free Press."

Chicago Institute of Surgery

Inc.

J. L. Spivack, M.D., Director

2040 Lincoln Ave. Chicago, Ill.

OFFERS POST-GRADUATE WORK:

1—Surgical Technique — Two weeks' course on dogs and cadavers with a review of the necessary Surgical Anatomy. The student performs the operations himself under strict supervision of competent instructors.

2—General Surgery—A three months' course consisting of: (a) Surgical Anatomy; (b) Surgical Technique on cadavers and dogs; (c) Clinical demonstrations in different hospitals; (d) Actual assistanceship (as 1st surgical assistant) in various hospitals.

3—Special Courses—
Gynecology; Neuro-Surgery; Cystoscopy
Urology; Ear, Nose and Throat; Bronchoscopy; Regional and Local Anesthesia
Orthopedics; Thoracic Surgery; Esophagoscopy

For Descriptive Literature, terms, etc., Address the Director

REFINED AND CONCENTRATED

ANTIPNEUMOCOCCIC SERUM ··· TYPE I

as prepared by FELTON

A solution containing the antibodies produced in horses by immunizing them against virulent cultures of type I pneumococci. The protective substances are associated with a water-insoluble protein in a volume 1/5th to 1/10th that of the original whole serum.

ADVANTAGES

CONCENTRATION: Smaller bulk required.

REFINEMENT: The refined serum is largely free from the antagonistic and deleterious substances present in the whole serum.

STANDARDIZATION: Standardization in units makes it possible to use adequate dosage with greater certainty.

EASE OF ADMINISTRATION:
LEDERLE'S REFINED AND CONCENTRATED ANTIPNEUMOCOCCIC SERUM TYPE I is supplied in syringes containing 10,000 units and 20,000 units respectively.

Literature will be sent upon request

Distributed by

HEALY & OWENS
1400 Larimer Denver, Colorado

LEDERLE LABORATORIES INC.
New York

An Open Letter to Doctors

YOUR PUBLISHER has suggested to us the mutual advantage of the cooperation of our school with the members of your fraternity; and so I am using this space to express our desire to render a service through our Position Department to doctors in the matter of recommending reliable and trained office assistants.

The average doctor is so busy that he is likely to neglect his office work, particularly collections. We frankly believe it is false economy not to employ the right office assistant; one who can meet the public in the right way, remember and record appointments, take care of correspondence, and make collections when collections should be made—promptly.

Doctors are invited to place such matters in the hands of our Employment Secretary, Mrs. Fredericke Broadhurst, KEystone 0822, Room 1, 1410 Glenarm Street. All applications will be received in confidence and recommendations made with great care.

Request. May we ask when inquiry is made about a good office training school that you remember that the Barnes School was selected, after careful investigation, as the best in its field in this territory.

BARNES COMMERCIAL SCHOOL

1410 GLENARM ST., DENVER, COLORADO

Member of National Association of Accredited Commercial Schools

ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company ---- 14
Agnes Memorial Sanatorium ---- 27
American Ambulance Company ---- 11
American Medical and Dental Association ---- 7
Baldwin, Arthur L. ---- 33
Barnes Commercial School ---- 45
Battle Creek Food Company ---- 18
Berbert, George & Sons ---- 39
Boulder-Colorado Sanitarium ---- 28
Bradley Realty Investment Co. ---- 9
Brandenburg, George ---- 14
Brown, Everette R. ---- 19
Camp, S. H. & Company ---- 17
Carlson-Frink & Company ---- 5
Carpenter & Hibbard Optical Company ---- 3
Charles Hair Store ---- 42
Chicago, Burlington & Quincy R. R. ---- 44
Chicago Institute of Surgery ---- 45
Children's Hospital ---- 24
Cocks-Clark Engraving Company ---- 14
Cocomalt ---- 36
Colorado Artificial Limb Company ---- 43
Colorado Photo Company ---- 17
Colorado Springs Psychopathic Hospital ---- 22
Colvin Brothers ---- 19
Corrective Foot Fitters ---- 31
Cragmor Sanitarium ---- 26
Crestone Heights Sanitarium ---- 25
Cullen-Thompson ---- 41
Cutter Laboratory ---- Cover 4
Daniel-Smith Engraving Company ---- 20
Denver Fire Clay ---- 32
Denver Rubber Sundries ---- 30
De Vajda, Andre ---- 12
Durbin Surgical Supply Company ---- 3
East Side Riding Academy ---- 33
Garden Farm Dairy ---- 37
Gill Engraving Company ---- 33
Glockner Sanatorium ---- 24
Gold Coin Creamery ---- 6
Golden Plunge ---- 13
Graduate Nurses Club ---- 7
Great Western Fuel & Hardware Company 12
Griffey, E. L. ---- 37
Health Products Corporation ---- 2
Hermann, A. A. ---- 14
Hynson, Westcott & Dunning ---- 39
International Trust Company ---- Cover 3
Jones, William ---- 14
Lafayette-Fultz Studio ---- 43
Lane Laboratories ---- 31
League Dairy ---- 31
Lederle Laboratories ---- 45
Lilly, Eli & Company ---- 8
Lilly, Eli & Company, Insert between ---- 4 & 5
Logan Printing Company ---- 34
Loveland Hospital and Clinic ---- 22
Loxam, George ---- 19
Manitou Mineral Water Company ---- 38
Mead Johnson & Company ---- Cover 2
Merck & Company ---- 6
Miles & Dryer Printing Co. ---- 11
Miracle Products Company ---- 30
Montclair Sanitarium ---- 23
Montclair Training School ---- 15
Mountain Optical Company ---- 30
Mount Airy Sanitarium ---- Cover 1
Muckle X-Ray Company ---- 41
Mulnix, R. C. ---- 19
Newcomb Realty Company ---- 11
Nonspi Company ---- 40
Park Floral Company ---- 20
Parke, Davis & Company ---- 4
Pencol Drug Store ---- 17
Physicians and Surgeons Hospital ---- 16
Porter Sanitarium and Hospital ---- 29
Pratt Recreation Ranch ---- Cover 4
Presbyterian Hospital ---- 28
Provident Mutual Life Insurance Company 9
Reid, H. G. Electrical Co. ---- 19
Riggs Optical Company ---- 35
Robinson, G. Wilse Sanitarium ---- 23
Roche Ambulance Service ---- 3
Rubin, Carl ---- 34
St. Joseph's Hospital ---- 26
St. Luke's Hospital ---- 25
Schayer, Max S. ---- 16
Seeleman-Ehret Photo Engraving Company ---- 19
Shirley Garage ---- 12
Shirley-Savoy Hotel ---- 39
S. M. A. Corporation ---- 42
Spencer Corsets ---- 15
Storm, Katherine L., M. D. ---- 40
Squibb & Sons ---- 1
Take-Apart Shelving Company ---- 21
Taylor, Chas. B. E. ---- 13
Texas Sunbeam Orchards ---- 18
Therapeutic Bath Institute ---- 18
Trowbridge Training School ---- 19
Tulane University ---- 14
Twentieth Century Mfg. Company ---- 5
United States Fidelity & Guaranty Co. ---- 29
U. S. Multigraphers ---- 19
Wentworth Riding Academy ---- 43
Western Messenger Service ---- 15
Western Newspaper Union ---- 38
Windsor Farm Dairy ---- 35
Winter-Weiss Company ---- 21
Woodcroft Hospital ---- 27

FORTY YEARS AGO

1891 1931

It was 40 years ago that a group of Denver financiers organized the first Banking Trust business in the Rocky Mountain West—THE INTERNATIONAL TRUST COMPANY.

In the history of any successful business as old as this are bound to be many stories of struggle, of human interest, of business romance.

But these we will not recount, for our interest has always been more in what we were doing and could do for our patrons than in what we had done. The result of this policy has been the building of a bank which offers every modern banking help that any person could ever want, could ever need.

To be specific: Trust Banking, Commercial Banking, Savings Banking, Real Estate Loans, Investment Banking and Safe Deposit Boxes.

Do you call The International Trust your bank? You should have all the advantages it offers in your daily business affairs.



1891 FORTIETH ANNIVERSARY YEAR 1931

THIS WINTER

DOCTOR SAYS—"KEEP FIT!"
YOU SAY—"HOW?"
WE SAY—"RIDE HORSEBACK!"

On Our 6000-Acre Ranch—No Slippery Streets or Traffic

PRATT RECREATION Inc. RANCH

Out East Colfax—See Sign 7 Miles East of Fitzsimons Hospital; Turn 1 Mile South

PHONE AURORA 347-R3

Thrill your holiday guests with an old fashioned bob-sleighing party—Jingle Bells and All

Ski-Joring

Polo and Golf Course

VACCINE THERAPY in RESPIRATORY INFECTIONS

as reported by *Roy P. Forbes,* of the Department of Pediatrics, Medical School, University of Colorado—*Archives of Pediatrics—January, February, March, April, 1931.*
A review of the literature since 1918 shows a preponderance of articles favorable to the use of respiratory vaccine as a prophylactic—21 favorable as against 2 unfavorable reports. On its use, therapeutically, there have been (including Forbes') 8 favorable and one unfavorable reports since 1926. Previous to this date the majority of reports were unfavorable.

*Tabulation of Forbes' Cases

Diagnosis—	No. of Cases	% Good Results	% Fair Results	% Poor Results
Influenza	67	62.8	29.8	7.4
Acute Rhinopharyngitis	39	60.0	20.0	20.0
Sub-acute Rhinopharyngitis	13	92.4	7.6	00.0
Acute Laryngitis	27	55.6	40.7	3.7
Acute Bronchitis	60	80.7	18.3	2.9
Sub-acute Bronchitis	8	75.0	12.5	12.5
Asthmatic Bronchitis	18	55.5	22.25	22.25
Total	232	68.86%	21.58%	9.81%

Pneumonia	Vaccine—76 cases—	9 deaths
All Cases	Controls—66 cases—	18 deaths
All Cases treated within 48 hours of onset	Vaccine—23 cases—	1 death
	Controls—40 cases—	6 deaths

* Cutter's Respiratory Vaccine used in all cases in Forbes' Series

The Cutter Laboratory,
Berkeley, California.
Gentlemen: Please mail reprint of Forbes' article.
Name
Address
City State

The CUTTER *Laboratory*
Established 1897
BERKELEY CALIFORNIA

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 2 FEBRUARY, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

OF MEDICINE
FEB 3 1932
LIBRARY

TABLE OF CONTENTS

Editorials
An Insurance Plan of Benefits for Veterans. 51
Joseph Cold Bloodgood 52
Medicine of the Renaissance..... 52
Scientific Program and the Business of Medical Practice 53
A super-Power Microscope 53
The Medical Man's Error 54
The Genesis of Social Insurance..... 54
Social Insurance Is Contrary to the Fundamental Principles of Democratic Government 55
A Paradoxical Observation 56
Original Articles
Control of Communicable Disease, J. W. Amesse 57
Trichomonas Vaginitis, John R. Evans 59
The Development of Local Health Service in the County as a Unit, Fred P. Foard..... 64
Medical Economics, Allan H. Erb..... 69
The Ideals of Medicine, A. Lee Briskman... 72
Case Reports
The Treatment of Anuria by Kidney Decapsulation, Roy P. Forbes and G. B. Packard 74
Public Health Notes..... 75
Library Notes, Book Reviews 79
Biography as Related to Medical Terminology.. 83
Secretarial Notes and Comment
Medical Board Proceedings 84
Joseph C. Bloodgood Program..... 85
Before You Invest--Investigate 85
The American College of Physicians 86
Washington Selected as Place for Sixty-First Annual Meeting of American Public Health Association 86
Prize for Research in Goiter..... 86
Medical Societies 86
Obituaries 92
Woman's Auxiliary 94
Wyoming Section
Editorials
The Public Policy and Legislative Committee 96
William Peel vs. Fred W. Phifer, et al..... 97
Wyoming News Notes 100
Hospital Section
Editorials
Confidential Information Contained in Hospital Records .....Ten
Objectives of the American Hospital Association for the Year 1932 .....Ten
Original Articles
A Greater Field for Social Service, Helen Conway .....Twelve
St. Luke's Hospital .....Fourteen
Colorado News Notes .....Sixteen
Immateria Medica .....Forty-Two

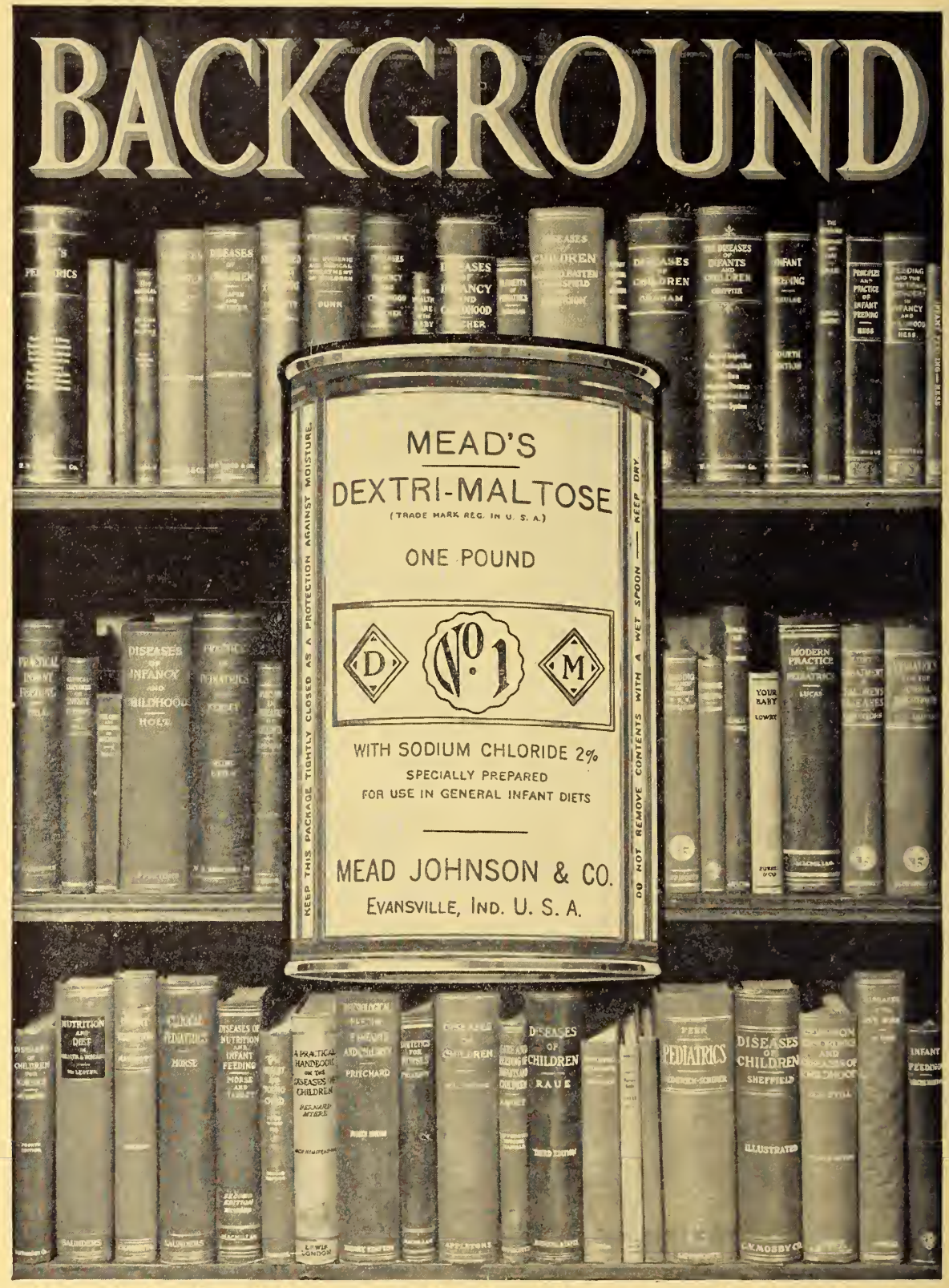
NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

MOUNT AIRY SANITARIUM

For the Treatment of
Nervous and Mental Illnesses

Medical Superintendent
J. P. Hilton, M.D.

1205 Clermont St., Denver
Telephone: YOrk 0849



Not a baby food, but part of a flexible system of infant feeding

Mead's Dextri-Maltose owes its wide use and acceptance by physicians to its inherent merit as a carbohydrate well tolerated by infants, and to the fact that it is a part of a flexible system of infant feeding in which the art and science of the physician, rather than the artifices of any manufacturer, predominate



EARLY SYPHILITIC TREATMENT SHOULD BE PERSISTENTLY CONTINUOUS

The healing of syphilitic lesions, and the production of a negative Wasserman following a single course of six or eight arsenical injections, may cause the luetic individual to believe himself protected. The patient, who, because of this false sense of security, discontinues treatment, is in great danger of developing a more serious case of neurosyphilis.

For the full protection of such individuals and of those with whom they come in contact, treatment should be continued and should consist of at least four courses of a satisfactory arsenical at suitable intervals.

The high therapeutic efficacy, low toxicity and ready solubility of Squibb Arsenicals provide as high and permanent a therapeutic benefit to your patients as it is possible to obtain.

Write to Professional Service Department, 745 Fifth Avenue, New York, for booklets giving complete information about Squibb Arsenical Products.

Neoarsphenamine Squibb Improved—Marketed in ampuls of 0.15, 0.30, 0.45, 0.60, 0.75, and 0.90 Gm. and in packages containing an ampul of the arsenical together with a 10 cc. ampul of Sterile Double-Distilled Water Squibb.

Arsphenamine Squibb—For intravenous injection after neutralization. Readily soluble in cold distilled water. Marketed in 0.1, 0.2, 0.3, 0.4, 0.5, and 0.6 Gm. ampuls.

Sulpharsphenamine Squibb—For intramuscular injection after simple solution in distilled water. Supplied in 0.1, 0.2, 0.3, 0.4, 0.5, and 0.6 Gm. ampuls.

E·R·SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

This 8/10 gr. of White's



COD LIVER OIL CONCENTRATE

contains the rich Vitamin A and D value of these 100 cc. of high-test cod liver oil



AFTER testing for Vitamin Potency, this concentrate is incorporated in the pleasant-tasting yellow tablets* of biologically standardized potency.

When you prescribe White's Cod Liver Oil Concentrate, you spare your patient 25 unpleasant teaspoonfuls for the equivalent of each 100 cc.

And if the patient is rather young or "fussy" about taste, that may mean the difference between leaving your prescription on the shelf or coming back for more when the bottle is empty.

Samples on request



* P. S. — Did you know there is a difference in taste even among concentrates? White's in the cheerful yellow tablets is pleasantly fruity — not *too* sweet — and there is no oily or fishy after taste.

White's

COD LIVER OIL CONCENTRATE

HEALTH PRODUCTS CORPORATION, Newark, New Jersey

Make the restricted Diet INVITING to the PATIENT

SPANISH CREAM

(6 Servings)

	Grams	Pro.	Fat	CHO	Cal.
1 tablespoonful Knox Sparkling Gelatine....	7.	6.	....	....	.....
¼ cup cold water.....	....	....	....	....	.....
1 cup milk.....	240.	7.5	10.	12.	.....
¾ cup water.....	....	....	....	....	.....
2 eggs.....	100.	13.	10.5	....	.....
1½ teaspoonfuls vanilla.	....	....	....	....	.....
1 tablespoonful sugar...	8.	....	....	8.	.....
	....	26.5	20.5	20.	370.5

Soak gelatine in cold water. Heat ¾ cup water and milk—add gelatine and stir until dissolved. Separate eggs and beat yolks to lemon color. Pour hot gelatine mixture slowly into egg yolks, cook over hot water until mixture begins to thicken, stirring constantly. Remove from stove, add salt, and flavoring. Cool. When nearly set fold in whites of eggs which have been beaten stiff. Mold and chill.

LEMON DESSERT

(6 Servings)

	Grams	Pro.	Fat	CHO	Cal.
1½ tablespoonfuls Knox Sparkling Gelatine....	10.	9.	....	....	.....
¼ cup cold water.....	....	....	....	....	.....
2¼ cups hot water.....	....	....	....	....	.....
Grated rind 1 lemon.....	....	....	....	....	.....
4 tablespoonfuls lemon juice.....	40.	....	....	4.	.....
2 tablespoonfuls sugar...	16.	....	....	16.	.....
	....	9.	....	20.	116

Soak gelatine in cold water. Add lemon rind to water while heating to boil. Pour over the soaked gelatine to dissolve it. Add lemon juice and sugar; stir until sugar is dissolved. Strain into molds and chill.

THE monotony of the soft and liquid diet can readily be overcome without departing from its rigidity. Used as a carrier for nourishing prescribed foods, Knox Sparkling Gelatine improves their eye-appeal without impairing their value or defeating their function. Authoritative tests have shown that Knox Gelatine does not burden the stomach and is easily digestible.

It is important, of course, to point out a distinction between Knox Gelatine and ready-flavored jelly powders. Knox is simply pure, granulated gelatine—85-86% protein—free from sugar, free from flavoring, free from coloring matter—free from anything that might conflict with other foods.

Thus Knox can safely be combined with eggs, milk, fruit juices, etc. There are dozens of ways of preparing dishes with Knox which will win and improve the appetites of convalescents, invalids, diabetics and others. Many physicians find our Recipe Books for the foregoing of real value. Copies of these will be sent to any physician upon request.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

KNOX *is the real* GELATINE

If you agree that recipes like the ones on this page will be helpful in your liquid and soft diet, write for our complete Recipe Book "Varying the Monotony of Liquid and Soft Diets"—it contains dozens of valuable recommendations. We shall be glad to mail you as many copies as you desire. Knox Gelatine Laboratories, 418 Knox Ave., Johnstown, N. Y.

Name.....Address.....City.....State.....

THIO-BISMOL

ACCEPTED FOR N. N. R. BY COUNCIL ON PHARMACY AND CHEMISTRY OF THE A. M. A.

Modern
Antisyphilitic
Bismuth
Therapy



PARKE, DAVIS
& COMPANY

The World's Largest Mokers of Phormoceutical and Biologicol Products

DETROIT NEW YORK
CHICAGO KANSAS CITY
ST. LOUIS BALTIMORE
NEW ORLEANS MINNEAPOLIS
SEATTLE

In Canada:
WALKERVILLE MONTREAL
WINNIPEG

TRADE **PYRIDIUM** MARK

Phenylazo-Alpha-Alpha Diamino Pyridine Mono-Hydrochloride (Manufactured by The Pyridium Corporation)

FOR URINARY INFECTIONS

An effective germicide used extensively in the treatment of genito-urinary infections. The oral administration of Pyridium in tablet form affords a quick and convenient method of obtaining bactericidal action when treating

Cystitis	Pyelitis
Gonorrhea	Prostatitis
Vaginitis	Cervicitis
Endometritis	Epididymitis

Pyelitis of Pregnancy



In therapeutic doses Pyridium is non-toxic and non-irritating. It rapidly penetrates denuded surfaces and mucous membranes and is quickly eliminated through the urinary tract. You can prescribe this remedy with full confidence that its therapeutic action will conform to the claims made for it. Avoid substitutes. Pyridium is supplied in four convenient forms: as tablets, powder, solution or ointment. Write for literature.

MERCK & CO. Inc

MANUFACTURING CHEMISTS

RAHWAY, N. J.



COPYRIGHT 1931, MERCK & CO. INC.



Optochin

BASE

ETHYLHYDROCUPREINE

In lobar pneumonia

The oral administration of Optochin Base has proved of marked value in the treatment of lobar pneumonia . . . 1. By decidedly lowering the temperature it modifies the course of the fever . . . 2. By lessening the distress, dyspnea and cyanosis, it gives greater comfort to the patient . . . 3. The tendency to extension of the pneumonic process is decreased by the pneumococcicidal power of Optochin Base . . . Ask for additional clinical data and generous sample, which will be promptly furnished on request.

MERCK & CO. Inc.

MANUFACTURING CHEMISTS

RAHWAY, N.J.

"COUNCIL ACCEPTED" ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

COPYRIGHT, 1931, MERCK & CO. INC.

"KNOCKS-THEM-ALL-SPRAY"



Quick and certain death for Germs, Moths, Roaches, Bed Bugs, Lice, Ticks, Fleas, Mites and countless other pests. It does not stain and positively leaves no bad after-effects.

"Knocks - Them - All - Spray" has been manufactured in Denver and sold thruout the Rocky Mountain section for the past sixteen years. When used according to directions it is guaranteed to give complete satisfaction or purchase price will be promptly refunded.

Hospitals and medical institutions are invited to write for free samples in liberal quantity.

The price of $2.40 per gallon includes metal container.



DOCTORS, in prescribing milk for baby feeding or patients on a milk diet, can feel at ease in prescribing Frink milk, a product bottled in Denver's largest and cleanest, home-owned dairy. With modern equipment and rigid sanitary rules, we are able to deliver to the home a pure and clean bottle of very high grade milk which is Nature's greatest health food.

1230 13th St. CARLSON-FRINK CO. MAin 0111

The Carpenter-Hibbard Optical Co.

1628 Welton Street

Denver, Colorado

Free Sample For Analysis and Comparison

We claim that WHITE ROCK COTTAGE CHEESE is higher in food value than whole milk.

To any practicing physician who would like to satisfy himself that this claim is justified, we will send a generous sample, free of charge or obligation. Simply request it on your letterhead. This request will be held confidential.

WHITE ROCK COTTAGE CHEESE

Manufactured by

GOLD COIN CREAMERY CO.

1260 CURTIS ST. DENVER TAbor 2809

HOW'RE COLLECTIONS?

The
American Medical & Dental Association

Offers You

The Best Collection Service Available

Exclusively Professional

Our Adjusters and Collectors are trained in Collecting Professional Accounts, which assures you of Greater Collection Returns

List Those Slow Accounts Now

We Invite Comparison of Results Obtained

A Service That Is Not Duplicated

Credit Reports *Courtesy Notices*

Professional Collections

Ask to Have Our Representative Call and Explain

PUT US TO WORK ON THOSE SLOW PAYERS

Collection Charges as Low as 20 per Cent

No Collection—No Charge

Uncollectible Accounts Are Neglected Accounts

Est. 1912

The American Medical and Dental Association

Credit Men for the Medical and Dental Profession

700 CENTRAL SAVINGS BANK BLDG. PHONE TAbor 2331

DENVER, COLORADO

Pulvules Sodium Amytal

IN SURGERY

FOLLOWING the administration of Pulvules Sodium Amytal (*Sodium Iso-Amyl Ethyl Barbiturate*) tranquillity replaces preoperative anxiety and excitement; less anesthetic is required; postoperative nausea is absent or diminished. Pulvules Sodium Amytal are distinctly useful in surgery, in obstetrics, and in general practice.

Supplied through the drug trade. Write for literature.

Eli Lilly and Company

INDIANAPOLIS, U. S. A.



Determining the Hydrogen Ion Concentration of Sodium Amytal Solution Colorimetrically

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: W. H. Crisp, M.D., *Chairman*, C. F. Kemper, M.D., C. S. Bluemel, M.D.

VOL. 29 NUMBER 2 FEBRUARY, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

AN INSURANCE PLAN OF BENEFITS FOR VETERANS

SUGGESTIONS are being made toward reducing the enormous burden upon the national treasury resulting from the increasing benefits to war veterans of the United States. One of the best authorities upon this problem is Dr. H. H. Shoulders of Nashville, Tennessee. His plan is discussed at length in the American Medical Association Bulletin of October, 1931.

Because of death or recovery of veterans, by 1924 a large percentage of beds in veterans' hospitals were vacant. In order to fill them, beds were made available for certain non-service connected disabilities. Then in 1926, for the same reason, the same service was made available free of charge to all veterans, regardless of the nature or origin of the disability. At the same time, millions of dollars were appropriated to build new hospitals and to enlarge the old ones. In 1930, seventy per cent of admissions were for disabilities related in no way to war service. If this plan is consummated, the annual cost of maintenance will be $200,000,000 plus cost of equipment and transportation of veterans.

Dr. Shoulders outlines a proposition that the government issue to each veteran an insurance policy with two provisions: (1) cash benefit payable weekly during any disability, and (2) hospital benefits when required. These cover non-service connected disabilities and interfere in no way with any benefits now being received. Careful estimates, based upon actual experience of large insurance companies, place the total cost of such a plan in the neighborhood of $100,000,000 annually. The delay entailed in an enormous hospital construction plan would be avoided. The plan would be of equal benefit to every veteran regardless of his proximity to a government hospital. The fund would support the veterans' families during the hospitalization. Veterans would receive benefit from every dollar spent, avoiding cost of hospital construction, administration, transportation, and salaries of the personnel. There would be avoided the abandonment of buildings and equipment when the last veterans' needs have been served. The veteran would have complete liberty in the choice of his physician and his hospital, thus preserving a relationship conducive to the best results. A great American institution would be preserved thereby—a system of medical service of the highest type on earth.

A point which Dr. Shoulders has not mentioned in the above plan is that the veterans would in many instances disperse unwisely the funds paid directly to them. Until the medical profession has educated the public toward an understanding of the human body in health and disease, a considerable portion of any large group would squander their benefits among the charlatans. The irregulars will find means of extorting funds from the laymen until public education precludes it. The medical profession is right in pointing the way toward wiser and fairer service to war veterans, but let it not underestimate the crying needs in public health education.

JOSEPH COLT BLOODGOOD

DR. JOSEPH COLT BLOODGOOD of Johns Hopkins Medical School will be the guest of the Clinical and Pathological Society of Denver on February 25 and 26, 1932. The special program for his stay in Denver will be found on page 85 of this issue of Colorado Medicine.

Three years following his graduation from the University of Wisconsin as a Bachelor of Science, Dr. Bloodgood received his medical degree from the University of Pennsylvania. He went abroad for post-graduate study, after serving internships in the Children's Hospital, Philadelphia, and Johns Hopkins Hospital, Baltimore. In the latter institution he served as resident and associate surgeon and associate and clinical professor of surgery. The last-named position he still holds, and he is also chief surgeon at St. Agnes Hospital, Baltimore. He is a Fellow of the American College of Surgeons, the American Medical Association, American Association for the Advancement of Science, American and Southern Surgical Associations, Radiological Society of North America, American Association of Pathologists and Bacteriologists, American Association for Cancer Research, and the American Society for the Control of Cancer.

For more than twenty years Dr. Bloodgood's interest and energy have concentrated upon the study of cancer, especially bone tumors, and have established him as one of the foremost authorities on the subject. Now well past the age of sixty, he performs many surgical operations, sees patients from all over the country, supervises a large office staff, studies specimens in his laboratory, and carries on literary and lecturing activities which alone would appall most younger men.

It is hoped that the physicians of Colorado and Wyoming will take full advantage of Dr. Bloodgood's visit. May it stimulate our interest in his great work and in the conquest of cancer.

MEDICINE OF THE RENAISSANCE

DOCTOR HENRY SIGERIST, Professor of the History of Medicine at the University of Leipzig, addressed the Denver County Medical Society at a special meeting on January 6. A dinner in his honor at the University Club preceded the lecture. "Medicine of the Renaissance" was the engaging topic of the evening.

Good surgery became known in the thirteenth century. Surgical progress, however, was not the field of greatest development in the realm of medicine. At this time a sick man suffered scorn as a victim of atonement for his sins. He who suffered a disease became degraded as an inferior individual far removed from perfection, thus sorely handicapped in every way. Many of the people favored destruction of the sick and the weaklings. The Greeks considered health life's greatest gift, and the doctor a man worthy of highest esteem.

Christianity became the religion of healing and redemption. It appealed most strongly, perhaps, to the weak and afflicted —offering moral as well as physical health. The suffering incidental to disease was professed to perfect the individual. No special interpretation of suffering being attempted, many persons doubted the moral right of the physician to shorten illness. In the Christian age, it finally came about that sickness binds people together rather than casts them asunder. Priests and physicians worked together in rendering thus the most important medical contribution of the middle ages.

The term Renaissance means not only the revival of literature but also the revival of the spirit of research. It means precisely the conquest of the knowledge of the world— a discovery of the creative arts and of scientific knowledge. The period brought fourth the growth of a new society and an impulse to self expression and personality.

A typical representative of this era is Fracastoro, humanist and Italian physician. His writings were many and varied— poetry, prose, discussions of the human soul, and two books on medicine. The black

death, leprosy, and syphilis for a time received most attention. When the mode of transmission of the latter became recognized, each race attributed it to its neighbor. Whence came it originally? Since suspicions seem naturally to fall upon the new, the New World was assumed to be its source.

The human body, more than ever before, became the object of intense study by artists and scientists. The foundation of anatomy and discovery of the human body took its inception. The outline, form, and play of muscles for a time attracted the most critical attention. Now the expression of artistic productions included the body and extremities as well as the face. Leonardo da Vinci —artist, engineer, mathematician—is held the most noted pioneer in the meticulous perfection of artistic proportion and detail. During these years a corresponding discovery of the animal and vegetable kingdoms appeared.

Vesalius, Professor of Anatomy at Padua, prepared a new edition of the works of Galen. He revamped the author's anatomical conceptions—Galen never having dissected a human body. Seven revised volumes were published. The founder of modern surgery, Ambroise Pare, also lived in this period. The greatest nobility characterized his life.

Lantern slides made Dr. Sigerist's talk doubly impressive. But one "American" word discolored the speaker's delightful English diction. He fails to understand how the early artists and anatomists made so many "boners." Applause of the audience then might have warned him to return to Europe before his vocabulary becomes ruined. All listeners were grateful for the opportunity of hearing and meeting this distinguished guest. His presence was made possible by the Dr. Arnold Stedman Fund.

SCIENTIFIC PROGRAMS AND THE BUSINESS OF MEDICAL PRACTICE

AMONG the introductory remarks made by Dr. E. Starr Judd, President of the American Medical Association, at the Annual Conference of Secretaries of Constituent State Medical Associations in November, were some timely suggestions regarding scientific medical programs. A fault of many, particularly the programs of state society meetings, has been a division into too many sections. They would be more valuable in many instances if conducted in not more than one division.

Specialists in every field find profit in the general papers. That this fact is frequently disregarded is conspicuous when an audience is cut in half as the specialists leave after the presentation of the paper in their field. There is no organ or system of organs beyond the pale of the "physiologic altruism" prevailing throughout the human body.

Papers covering such topics as professional ethics, methods of practice, care of the indigent sick, qualifications for medical society and hospital staff membership, training requisites, and requirements for specialization, should always command the interest of every practicing physician. When all these are properly cared for, the business of medical practice will take care of itself—then only, and not until.

A SUPER-POWER MICROSCOPE

AN active and loyal member of the Colorado State Medical Society, Dr. S. Fosdick Jones, who now resides in Pasadena, Calif., has submitted an account of the perfection of the world's most powerful microscope. After fourteen years' effort by Dr. Royal R. Rife of San Diego and Dr. Arthur I. Kendall, head of the department of research bacteriology of Northwestern University, the microscope has been produced. A new optical principle has been applied; double quartz prisms and powerful illuminating lights have been incorporated into the instrument. Its lowest magnification is 5,000 diameters; its maximum working magnification is 17,000 diameters. The strongest microscopes now in use magnify between 2,000 and 2,500 times.

Dr. Kendall claims that with the aid of this instrument he has seen the typhoid bacillus in a filtrable stage after culturing

it upon a special medium. If these observations are authentic, it is probably the first time the minute filtrable organisms have ever been seen. This may lead to revolutionary observations in the study of diseases believed to be caused by filtrable viruses. Among others, we think of smallpox, infantile paralysis, measles, and possibly the common cold.

Dr. Jones assures us that this is an authentic report in connection with this remarkable instrument, that he has seen it invented and perfected, and that all statements made by Dr. Rife and Dr. Kendall are true.

THE MEDICAL MAN'S ERROR

WE medical men may learn more and earn more from a little reflection upon the methods of the charlatans than they can ever take from our pockets. Fully three-fourths of the ills healers are called upon to treat are minor trivialities. These, in fact, constitute the very existence of many individuals and assume importance under certain circumstances in almost a majority. When they manifest themselves their host wants something done about them. Someone else must understand their importance as definitely as he does and must do something about them. Enter the fakir with his bundle of wares, his machinery, lights, manipulations, salesmanship, elixirs of life. They're painless. What matters the truth to the little ills that Nature cures in spite of almost anything.

The charlatan has done something for his follower, and to him goes the glory. He gave his patient something to see and feel—something to remember him by. He has, in many instances, replaced a skilled and scientific man—one, perhaps, who lost sight of the little things in the maze of his knowledge of the bigger things which didn't occur. As someone has aptly said, "Out of the inattention of scientific men for ordinary wants of an indisposed people, spring and flourish the mass of cults and of mock medical systems that insidiously deprives the sick of the available expert medical attention. In other words, it is the seeming indifference of physicians toward the annoying ailments of prevalence and frequency that forces the people to seek care and a sympathetic ear from the pseudists."

Yet a few physicians waste energy and upset their equanimity over the exploits of the quacks. May they ponder a bit and contemplate this fallibility of human nature. Perhaps they may be grateful to know how to make a better living and to be more useful doctors.

THE GENESIS OF SOCIAL INSURANCE

SOCIAL Insurance is the hybrid offspring of impracticable sentimentalism and political expediency. It is an epidemic disease first observed in Germany about fifty years ago which has gradually spread and infected a considerable number of the nations of the earth and now has arrived at our very doors. Unless we succeed in establishing a rigorous quarantine of enlightened public opinion, it will surely gain a foothold in this country in the not distant future.

Social Insurance consists of the following subdivisions or parts: Compulsory health insurance, old age pensions, widows' and orphans' pensions, and unemployment pensions or doles. In none of the countries were they all adopted at the same time. Germany adopted compulsory health insurance in 1883, and all of the other forms since that time. Austria adopted compulsory health insurance in 1888; Hungary, in 1891. England adopted old age pensions first and compulsory health insurance in 1911, and the others subsequently. In this country some of the states have adopted old age pensions and some widows' and orphans' pensions, but so far none have adopted compulsory health insurance, for which negative blessing let us raise our voices in thanksgiving.

When the scientific physician is confronted with the problems presented by a new patient, he meets the situation in the following manner: He obtains a complete family and personal history in order to ascertain if possible the causes which have brought about the condition; by his physicial examination

and laboratory investigations he finds out what variations from the normal have taken place; after all this he is in a position to advise and institute the proper treatment. Let us follow the same course in the study of this problem.

During the late seventies a number of German parlor socialists conceived the idea that the state make itself responsible for the medical care of its workers. The sentiment in favor of compulsory health insurance grew rapidly among the workers, and Bismarck, although expressing serious doubts as to the soundness of such a measure, yet feeling that something had to be done in order to appease the clamor of the proletariat and the alarming growth of socialism, adopted social insurance as a government measure, had a bill drafted and enacted into law.

In England, National Insurance, as it is called there, had a slightly different setting but substantially the same background. In 1910, David Lloyd George in order to strengthen himself politically decided the time for such legislation was opportune. Not being able to speak German, he gathered about himself several interpreters, hied himself to Germany and after interviewing the well paid heads of the German system, and after having been wined and dined and lionized for two weeks or so, he returned to England very enthusiastic about the whole project, had a law drafted, and later secured its passage. In the recent parliamentary election the Liberty party, of which Lloyd George has been the head for many years, elected just four members to Parliament or less than one per cent of the whole number. So while Lloyd George may have saved his political skin by National Insurance in 1911, he certainly lost his hide by it in 1931.

Practically every reform movement attracts to itself a considerable number of well meaning, emotionally impressionable, impractical, irresponsible, very vociferous individuals, and very often a group, usually the very ones who manage the propaganda and who hope to gain some pecuniary benefit from it. Social Insurance is no exception to this general rule.

Some of the common characteristics of reformers is that they want a new law passed for every human ill, and when the law is enacted, they either sit back waiting for the millennium to arrive or they rush off looking for new evils to correct by new laws forgetting to see to it that the law just passed is being properly enforced, and forgetting at all times that all laws must depend for their enforcement not upon supermen but upon men often of less than average intelligence and integrity, upon politicians and their henchmen, who are quick to see how these usually unsound and loosely drawn laws can be converted to their own advantage. (By Dr. Edward H. Ochsner, Chicago).

SOCIAL INSURANCE IS CONTRARY TO THE FUNDAMENTAL PRINCIPLES OF DEMOCRATIC GOVERNMENT

ALL forms of Social Insurance are contrary to the spirit of democratic government. They destroy individual incentive, initiative and self reliance. They substitute paternalistic control for independence of thought and action. We pride and congratulate ourselves on living under a democratic form of government, but most of us fail to realize that we are slowly but surely drifting away from the true democratic spirit in government—that we are gradually substituting a hybrid form of government, a cross between bureaucracy and socialism. Personally, I am a firm believer in democracy and believe that many of our present ills are the direct result of already having deviated too far from the fundamental principles of democracy.

Individual responsibility is the foundation of democratic government. If a nation does not educate its citizens to individual responsibility, it will soon have no one capable of assuming public responsibility. Slowly through the ages the common man has risen from chattel slavery and serfdom to independence, freedom and personal liberty, and now some well-meaning but misguided people want to undo all this. They want to enslave him again, making him in fact a bondsman of the state. Organized society is forever forging new chains with which to

shackle the free development of its members. It is forever meddling with the private affairs of its citizens. One of the best illustrations of this statement is found in a recent survey of the Citizens' Bureau of Milwaukee which found that that city is engaged in approximately three hundred different functions, one-fifth of which have been added during the last sixteen years. Milwaukee is no worse in this respect than many other cities in this country. Add to this the activities of the county, state, and federal governments, and we find an explanation of the following fact—"In a period in which the population of the United States has increased ten per cent, the number of persons holding civil office has increased forty per cent, and the amount paid in salaries has increased one hundred and fifty per cent." Thirty years ago one person in every forty-five was in government employ while now one in every twelve is so employed.

"It is a profound mystery why the people of the present generation should so violently run after the very things their forefathers so violently ran away from in 1776."

In a recent article, Dr. Harry Emerson Fosdick makes a statement that seems particularly suitable in this connection. He said, "Many of those in society who are dissatisfied with present conditions know what they want to get away from, but they do not know whither they are going." I would add "nor do they seem to have any clear idea as to what they want." Before we adopt new laws we should make reasonably sure that such laws will not introduce new and greater evils than they are expected to cure, that they can actually be enforced, and that they are not likely to be abused in their administration.

A far-reaching innovation such as Social Insurance must be viewed from many angles. We must consider its effect upon the general public, the insured, the employer, and the medical and dental professions.

If we are deliberately trying to get away from the democratic form of government having a definite objective in view; and if we are reasonably certain that the goal for which we are headed is worth while and is going to result in general social and economic betterment, an experiment with Social Insurance might be justified, but, even then, it is well to weigh carefully and consider what the wise founders of our government had to say on this important subject. I quote from the Declaration of Independence, "Prudence, indeed, would dictate that government long established should not be changed for light and transient reasons." If we as a nation are just aimlessly drifting, as we seem to be, we are almost sure to get into serious trouble. We believe that we shall be able to show conclusively, in future articles, that in those countries in which it has had prolonged and extensive trial it actually has had serious consequences. These problems will be considered in subsequent articles.—(By Dr. Edward H. Ochsner, Chicago).

A PARADOXICAL OBSERVATION

A MOMENT'S reflection will clarify a popular misconception in the field of immunization procedures of preventive medicine. Some physicians seem to resent the supplying of immunizing injections to school children by the community through its school doctors. Paradoxical as it may seem, actual figures and careful observation prove that private physicians themselves do more immunizing when the community is rendering this service to school children. This indicates nothing other than the value of publicity, of which there is unquestionably an insufficiency.

Health education derives its best results through school children, or more particularly through their mothers. Children between the ages of two and five need the immunity probably even more than they do after these pre-school years. Instruction may be given the mothers by regular physicians and nurses in pre-school clinics and the immunizing procedures done by them or by the family physician—but done nevertheless. Then only will the full value of our scientific knowledge be realized and the unbiased confidence of the layman finally won.

(Continued on Page 18, Adv. Section)

CONTROL OF COMMUNICABLE DISEASE*

J. W. AMESSE, M. D.
DENVER

When one tries to appreciate the vastness of such a problem—the complexities involved as deep as human nature itself, our own ignorance of so many vital aspects of disease, and the blind opposition from apparently otherwise intelligent citizens—the picture of the brave old Norse king trying to conquer the tides with a broom is brought painfully to memory. But if we are dismayed often to the point of being overwhelmed by the immensity of this task, may we not be encouraged by triumphs won in the conquest of disease in our own generation and in the subjugation of such world old plagues as typhus, cholera, and yellow fever. Fifty years ago visitations of these relentless messengers of death were regarded as mysterious acts of Providence, to be borne with becoming humility. May we not believe, too, that a race which has harnessed the power of the wind, the waterfall, the immeasurable energies of steam, radio and electricity, for the comfort and advancement of mankind, will not falter in the struggle against those invisible agencies which in action may hinder or totally prevent such progressive civilization? It is almost axiomatic however that to achieve even a fair measure of success in a crusade against the public enemy there must be a concerted policy, a unanimity of opinion, a crystallized determination to win. This attitude of mind has brought the American people triumphant through all its major struggles in peace and war. In the fight for freedom from epidemic disease, we see no such unity of effort. Every measure placed on our statute books, designed to limit the ravages of preventable disorders, is written only after months or years of strife; it is even then usually a compromise with religious fanatics and irregular practitioners of the healing art, and after assuming the dignity of the common law is "more honored in the breach than in the observance."

It is useless for us to discuss control of communicable affections on any extensive scale so long as a considerable element in every community denies the very existence of disease and hampers in every conceivable manner the efforts of our authorities to enforce health ordinances. That would seem to be a fundamental dictum to any fair minded observer, and certainly no one can bear witness to the truth of this assertion more effectively or more frequently than the pediatrician. To banish conditions subversive of good health and length of life, we must become health minded; to achieve a public health conscience we must make such an appeal to the still open minded that its practicability will be accepted. A striking illustration of this, on a nation wide scale, may be seen in the present sanitary status of Cuba, where the people unanimously decided that yellow fever must go—for nearly a third of a century not a single victim to this scourge has been recorded in that republic. In smaller dimension, but none the less spectacular and convincing, has been the experience of Auburn, New York, a city of about 5000. Five years ago this community gave serious consideration to the study of that curse of youth, diphtheria; ordinances were adopted requiring the immunization by toxin-antitoxin of all children beyond the age of one year. So effectively has this been carried out and so complete has been the cooperation of the public that for the past two years not a single case of diphtheria has been discovered. Similar instances of control can be cited for smallpox, typhoid fever, and social diseases.

The Committee on Public Health Service and Administration of the White House Conference has submitted a brief report on its survey of this paramount movement. We find that in the United States there are reported three million cases of communicable disease annually; probably as many more

*Read before the division of Health and Mental Hygiene of the Colorado Conference on Social Work, Denver, Sept. 24, 1931.

are not reported. These diseases, about half of which occur in children, cause a loss of about 375,000 persons. In addition to these deaths must be added countless thousands of cases in the young and old, permanently disabled by these disorders, and the economic loss to the community produced by such illness. Knowledge of the control of these affections exceeds its practical application; scientific facts of proved value are not utilized. If all that is known about communicable disease control were generally applied, there would be such an abatement of unnecessary sickness that preventive measures would be popularized everywhere. The various factors regarded by the Committee as essential in this campaign include adequate medical service, public health nursing, early recognition and prompt reporting of contagious disease, isolation and quarantine, proper hospitalization, the control of carriers, research, and—early and always—education. The success of any health office depends upon an informed public opinion. The recommendations of this group of investigators follows:

Provision be made for the establishment of well-organized health departments with full-time trained personnel having facilities for rendering aid in diagnosis, making epidemiological studies, giving information and aiding in the prevention and control of communicable disease in every city and rural community in the United States, and that sufficient funds be provided to make this possible.

As in rural districts only 505 counties representing 24 per cent of the rural population of the United States have full-time health service, an effort be made to provide the other 76 per cent with such service as soon as possible.

To avoid confusion and in the interest of effective administration, a united effort be made to have adopted, as far as practicable when climatic, geographic, and other local factors are taken into account, uniform rules and regulations for the same disease. All rules and regulations should be based not on tradition, but on the practical needs and possibilities as determined by experience and scientific investigation. Such rules should differentiate in their application between immune and susceptible persons, and, where difference of communicability exists, between adults and children.

For the diseases among children for which specific means of immunization are available, such as smallpox and diphtheria, continuous programs be carried out until the more desirable method of making immunization a part of the routine care of the infant by the family physician has become the rule.

The value and necessity of protection from disease be made not only part of the preschool and school health program, but also that it be brought prominently before the adult population at favorable opportunities.

All communities be urged to safeguard their people by properly providing facilities for the adequate supervision and treatment of their milk and water supplies and satisfactory disposal of human waste, because of the interrelationship between these and the spread of intestinal diseases including typhoid fever.

Encouragement be given to the improvement of housing and working conditions and of recreational facilities because of their relation to child health.

Adequate hospital and other facilities be provided for the care of patients with communicable disease (including tuberculosis, gonorrhea, and syphilis.)

Provision be made for an adequate public health nursing service, because of the usefulness of public health nursing in the administrative control of communicable disease.

Facilities be provided to avert or reduce to a minimum the disability which may ensue from those communicable diseases, such as infantile paralysis, which are prone to cause serious after-effects.

Practising physicians, local, state, and federal authorities cooperate fully in giving prompt information about communicable disease cases which may contribute towards control or add to our knowledge.

Medical schools give more attention to the training of their students in regard to the public health responsibilities of physicians.

On account of the importance of the carrier in the spread of certain diseases, efforts be made to discover and properly control such sources of infection.

The control of communicable disease be unified under the local health authority. In anticipation of epidemic emergencies all resources for control should be organized for prompt mobilization under the local health authorities.

The satisfactory control and prevention of disease requires precise knowledge of the cause, recognition, and modes of spread of communicable diseases. This knowledge is lacking for many diseases; it is therefore recommended that investigations in the laboratory, at the bedside, and in the field be promoted.

As much of our knowledge of disease and control has resulted from properly conducted experimentation on animals, there should be no attempt to restrain the use of animals for this purpose, so long as the experiments are conducted with due regard to the sensibilities of the animal used as well as to the benefits accruing to both human beings and animals from such experimentation.

The state, city, and rural health units, the communicable disease hospitals, laboratories in medical schools and colleges, as well as those institutions established by the United States Government and philanthropies for research work, should be encouraged to feel it their duty to make investigations of communicable diseases and improved methods for their suppression.

TRICHOMONAS VAGINITIS*

JOHN R. EVANS, M.D.
DENVER

In 1837, Donne first described the flagellated protozoon parasite now known as the Trichomonas vaginalis. He considered its pathogenicity but arrived at no definite conclusions. Since his time, the parasite has been studied occasionally, and suggestions have been made from time to time that it produced irritative or inflammatory reactions in the vagina. In the past three years, particular attention has been directed to this parasite as the apparent cause of a severe and more or less intractable vaginitis, and numerous investigations are under way to determine something of the nature of this parasite and the clinical prevention and cure of the disease it apparently produces.

Morphology, Cultural Characteristics, and Life History

There is at present incomplete knowledge concerning many phases of the morphology, life history, and host parasite relations of the Trichomonas. There is rather general agreement as to the morphology. It has a fusiform or pear shaped body with free flagellae at the anterior end, an undulating membrane extending backward to near the middle of the body, and an axostyle projecting posteriorly. Its size varies from 7 to 30 microns in length with a width of ½ to ⅔ the length. The average length is from 15 to 18 microns greater than the Trichomads found in the mouth or the intestine. In fresh material the protozoa are exceedingly active, moving with a jerky forward motion accompanied by a counterclockwise rotation on the long axis. Satisfactory media, containing particularly glucose and blood, have been developed for their culture. On the basis of cultural studies, Stein of Chicago claims there are four distinct types of trichomonads: those of the mouth, lungs, intestines, and vagina. The vaginalis type grows equally well under anaerobic and aerobic conditions. They are killed almost immediately at 48°C. (118°F.). When kept in an icebox at 9°C. (48°F.) for twelve minutes they remain very active. After twenty-four hours under these conditions they are killed. They

*Read before the Medical Society of the City and County of Denver, Oct. 20, 1931.

die immediately at a pH of 8 to 8.4. Their method of reproduction is by binary fission with details which parallel the better known intestinal trichomonad. It has been stated that the vaginalis variety is the type species of the genus, and if this is true it is important in the solution of the problem of transmission from host to host. Hegner is convinced that there is no cyst stage in their development even though the clinical course of the vaginitis seems to indicate one. They may be demonstrated in smears of dried material by fixing in Schaudinn's solution for twenty-five minutes and staining with Heidenhains' iron hematoxylin. Burrage says that better preparations are made by simply drying and straining because the fixing solution produces distortion of the parasite.

Pathogenicity and Incidence

Many claim that the Trichomonas vaginalis is non-pathogenic and is a harmless inhabitant of the vagina. Haupt says it is non-pathogenic because in a few cases he transferred some trichomonas secretion to the vagina of a normal woman and failed to produce a vaginal inflammation or change the vaginal secretion in the recipient altho a large number of the flagellates were present. Seitz and Hoehne affirm that the trichomonas is not itself pathogenic but tends to increase the virulence of the bacterial flora of the vagina. Davis firmly believes it is pathogenic and in a large series of cases did not find the trichomonas in a single patient who was entirely free from symptoms of leucorrhea and vaginitis. Many investigators found that the postpartum morbidity was twice as high in women who came to term with a trichomonas infection. Regardless of the conflict in views, we know that with the disappearance of the parasite from the vaginal secretion, the vaginitis disappears. It is nearly always found with other organisms. One investigator claimed he found it most often in combination with a small Gram-negative coccus smaller than the gonococcus. Personally, I have never seen this organism but have often seen cocci similar in size and shape to the diplococcus of Bargen. The presence of these other organisms lead to erroneous diagnoses, particularly of gonorrhea.

The high incidence of this infection as reported by competent gynecologists is rather startling. Davis of Milwaukee stated that since he has been making routine hanging drop examinations, 30 to 60 per cent of all leucorrheas in pregnant and non-pregnant women were diagnosed as being caused by the trichomonas. Another gynecologist making thorough examinations in a series of 300 pregnant women found 21 per cent infected with the parasite with clinical symptoms. He also stated that the infection was more common in the colored than among the whites, the ratio in this series being about three to one. At any rate it must be listed as one of the common causes of leucorrhea.

Mode of Infection

The mode of infection is at present unknown. Because of the frequency of trichomonas infections of the bowel, it was immediately assumed that the vaginitis was an extension from the rectum. Consequently most investigators have tried to find concurrent infections. Several investigations on small and large series have been made, but no one has reported a single case in which the two infections were found in the same individual. Two or three cases of prostatitis and vesiculitis in the male have been reported and there is the possibility that the male organs may harbor the parasite without giving symptoms. Davis examined many men whose wives had the infection but found not a single coincidental infection. In two cases, which I recall, recurrences seemed to have some relation to coitus. In one instance, the patient's deviation from the path of moral rectitude occurred at intervals of three to four months with the return to Denver of a bond salesman. At these times she always had a severe recurrence of the infection. In another instance the patient's infection followed the first coitus. There is a trichomonad in mother of vinegar and the old-fashioned vinegar contraceptive douche has come under scrutiny. But the modern generation knows nothing about this, particularly since the advent of the widely adver-

tised Zonite. Direct implantation seems necessary since the parasite dies so quickly under unfavorable conditions.

Symptomatology

The clinical picture of the severe case is quite characteristic. The subjective symptoms are as follows: profuse, malodorous discharge which is almost always irritating; the patient complains of being "chafed." and of severe itching of the vulva. There is seldom burning of the urine though the urine may cause an external burning sensation as it comes in contact with the inflamed vulva and thighs. There is a history of distress from a few days to a few years. In the latter case, there is usually a history of amelioration of symptoms in the late winter and spring. In these cases there is usually also a history of previous treatments varying from antiseptic douches to hysterectomy. Davis reports a patient aged twenty-three years who had three vaginal operations, an hysterectomy, a salpingectomy, and a bilateral oophorectomy, in an attempt to cure the vaginitis and the persistent discharge. The following are the chief objective symptoms: Inflammation of the vulva and skin of the thighs, it is not the rule for the urethra to show infection. The vagina is filled with a thin, serous, uniform, greenish-yellow discharge with a frothy appearance differing from the ordinary cervical discharge which is usually mucoid or mucopurulent, tenacious and stringy. The vaginal surfaces may be generally inflamed or there may be isolated inflamed spots which are punctate in appearance giving a strawberry vagina. Occasionally these punctate inflammations appear only in the vault of the vagina and on the portio. Unless there has been a previous endocervical discharge, there is nothing abnormal about the endocervix. One often sees the vaginal discharge adhering to the normal cervical plug which gives the appearance of an endocervical discharge, but if the presenting portion is carefully wiped away and a cotton applicator is twisted in the cervical canal, a perfectly normal clear mucous plug will be withdrawn. Kleegman describes eccentric erosions of the portio away from the external os and states that it is the only infection in which this type of erosion is seen. No one else has ever reported these particular lesions. Since the original draft of this paper I have seen one case showing this lesion.

There are mild cases in which a slight or moderate leucorrhea is the only complaint, and these are usually misdiagnosed unless a routine hanging drop preparation is examined. In these cases, the discharge is less in quantity, less irritating, and the vagina shows little if any irritation except at the vault. Lessening of the symptoms is easily obtained with the usual routine of medicated tampons and douches. Recurrences are frequent, however, and usually the true nature of the disease manifests itself in a severe form in the course of time. Of course the observation of the living parasite clinches the diagnosis. A few words as to the technique of the hanging drop preparation might not be amiss at this time. The specimen is easily collected in the concavity of the inferior blade of a speculum. With a small glass rod, a drop of the secretion is placed on the center of a cover-glass and diluted with a drop of normal saline solution warmed to body temperature. Dilution is preferable because the motion of the parasite is hampered by the thick pus and it is hard to detect it except by its motion. The cover-glass is inverted over a hanging drop slide and is ready to examine. Several fields are examined under the low power until movement is detected and then one can examine with the high dry power to see the details of the parasite. Caution must be observed concerning the temperature. As has been shown, the parasite is more susceptible to extremes of heat than of cold. Many of my early attempts to find it were failures because of overheating of the slide or diluting solution. At ordinary room temperature, they will remain active for some time and one does not need to exercise more than ordinary speed in the examination.

Treatment

We cannot hope to arrive at any infallible cure until we learn the mode of infection. One of the typical things about the infection is its frequent recurrence despite all of our

prophylactic measures. For this reason many men think it probable that some of the parasites are harbored under parts of the inflamed mucous membrane or in the cervical canal. This forces one to suspect also a cyst stage of the parasite. These suppositions have become the basis of most treatments. It is doubtful, however, if the parasite is ever harbored in the cervix, as there is never evidence of infection in that part, and the cervical secretions are always alkaline even under extremely pathological conditions, the only exception probably being carcinoma. All treatments have two aims: destruction of the trichomonas by chemical means, and biologic alteration of the bacterial flora. Many chemicals have been found to destroy the parasite in vitro. Here is a partial list: Gentian violet, mercurochrome, glycerine, methylene blue, alcohol, copper sulphate, Lugol's solution, alum, zinc sulphate, bichloride of mercury, metaphen, green soap, sodium hydroxide, and silver nitrate. The usual routine of treatment advocated is as follows: 1. The anal region, vulva, and vagina are scrubbed with tincture of green soap and rinsed with sterile water. 2. The vaginal wall is painted with two or three so-called antiseptics in rotation with thorough drying between applications. The favorite solutions used are mercurochrome, methylene blue, and hexylresorcinol. 3. The vagina is thoroughly dried and a tampon impregnated with glycerine, boroglycerine, or glycerine and soda is inserted. This is allowed to remain overnight.

This treatment is applied every second or third day and in the interval, the patient uses douches of 0.5 per cent lactic acid solution, in an attempt to restore the normal bacterial flora. Theoretically, such procedure should destroy all of the parasites at one or at the most, two treatments. This, however, is not true.

In considering treatment, there were many things concerning the above outlined regime that appeared cumbersome and opposed to accepted principles. The multiplicity of chemicals and methods indicates lack of specificity. Scrubbing an inflamed vaginal wall until it bleeds seems an insult to tissue which we would hardly consider in any other location. Again it must be almost unbearable torture to a patient who can scarcely endure the insertion of a well lubricated speculum. Application of chemicals, such as bichloride of mercury, with danger of absorption, and tincture of iodine with its attendant irritation seemed to hold a certain element of danger. Medicated tampons seemed of questionable value and might do harm by withholding the secretion and keeping it in close contact with the vaginal wall. There is also to be considered the mechanical irritation of a tampon to an already highly inflamed surface. During pregnancy, one must consider only the gentlest of intravaginal manipulations. So more simple treatment was devised based upon the known fact that the parasite cannot live or multiply in an environment having a pH above 8.4. It consists essentially of maintaining a constant fairly high alkaline condition within the vagina. The routine is as follows:

The vagina is cleansed gently but thoroughly with cotton pledgets. The vaginal walls are then coated with a fine layer of sodium bicarbonate powder using some sort of an insufflator. Then about ½ dram is deposited in the posterior fornix. The patient is instructed to wear a pad to absorb the secretion and to take an alkaline douche before returning the next day. The same procedure is carried out daily for from four to six days when the acute inflammation has usually subsided and the secretion is markedly less. Repeated examinations have shown that the reaction within the vagina is constantly alkaline during this time. After the first treatments some patients complain of burning sensations which subside in about one-half hour. If these are too severe, however, a mixture of kaolin and sodium bicarbonate is used. When the acute inflammation has subsided, No. 12 veterinary capsules filled with sodium bicarbonate or sodium bicarbonate and kaolin or suppositories loaded with sodium bicarbonate are prescribed. These are inserted in the morning and at bedtime following an alkaline douche. The patient is

asked to return on the first day of the menses to the office. This is absolutely essential, because if not treated during this time, the disease recurs as severe as before. Apparently the blood is an ideal culture medium for the parasite. During the menses all the blood and debris are cleaned out and insufflation with powder performed as before, the patient taking a douche before returning on the following day. For the next week following the menses home treatment is continued. If no trichomonas are found at the end of that period and there is apparent clinical cure, treatment is stopped except for alkaline douches twice daily. The treatments during the menses and for the week following are continued for three months. Because of the possibility of infection from the bowel, daily cleansing of the anal and vulvar regions with soap and water is advised—this to follow bowel movement if possible. Because of the apparent relation to coitus, insertion of a capsule or suppository following coitus is advised. Lactic acid douches have not been used because with the subsidence of the disease the bacterial flora returns to normal, and it is improbable that douches can do much more than clean and deodorize.

The capsules used in home treatment are not always satisfactory as many patients cannot or are fearful of insertion to the vaginal vault. In these cases, one will note that the vaginal walls elsewhere are normal while the vault retains its irritated appearance. Suppositories, while their insertion is easier, are less satisfactory because the oily base is immiscible with the watery secretions. Experiments are to be carried out with a mixture of the powder and a water soluble jel which can be deposited in the vault in a similar manner to lactic acid jelly in contraceptive practice.

Considering this type of treatment, one must recognize that the sodium bicarbonate has two functions: neutralization of the acid, and maintenance of a pH above 8.4 by solution in the vaginal fluids. Other powdered non-toxic substances were considered from these standpoints. If mineral acids were produced, calcium carbonate and magnesium oxide have 2.23 and 6.22 times the neutralizing value of sodium bicarbonate taken volume for volume. Experimentally this is not borne out because the acids formed are probably organic acids. Soluble salts of strong bases and weak acids such as sodium citrate, potassium citrate, potassium acetate, and sodium borate were tested for their hydrogen iron concentration in concentrated solution at body temperature. Potassium citrate gave a pH of 8.7 which is almost identical with sodium bicarbonate, and sodium borate gave a pH of 9.0 or above. While these two substances, therefore, should be satisfactory from the standpoint of alkalinity, their neutralizing power is feeble.

This management has given results apparently as good as those reported in the literature. It seems to have three advantages: first, it is less painful and distressing to the patient; second, most of it can be carried out at home and is applicable to many women who are unable to make frequent office visits over a long period of time; third, it can be used with safety in pregnant women in whom scrubbing of the vaginal walls and tamponage might stimulate miscarriage or premature labor.

Summary

1. Much of the morphology, cultural characteristics, and life history of the Trichomonas vaginalis is unknown.

2. The parasite is apparently pathogenic and causes a relatively high proportion of the leucorrheas and vaginal inflammation.

3. The mode of infection is unknown, and this prevents prophylaxis against recurrences.

4. The diagnosis is made on the basis of more or less classical symptoms and the examination for the living parasite.

5. A treatment is described which consists of maintaining a constant high alkalinity within the vagina, thus rendering the environment inimical to the existence of the parasite.

THE DEVELOPMENT OF LOCAL HEALTH SERVICE IN THE COUNTY AS A UNIT*

FRED P. FOARD
SANTA BARBARA, CALIF.

Somewhat similar to the great advances made in educational advantages during the past few decades, the public health movement also has gained in prestige until at the present time the people of the nation are realizing that essential to the development of sound minds we must give more attention to the development of sound bodies. Just as an individual character may be best moulded during the early years of childhood, so must we begin in early childhood to lay the foundation for more physically fit men and women of the future. The educator and the public health worker, therefore, have a common object in view. Upon the team work between them will depend, as during recent years, the degree of progress which we may hope to attain in building a healthier, happier, and more mentally fit manhood and womanhood of the generations which will follow after us. Just as the people of the world would be horrified if it were necessary that we drop back to the educational advantages of a generation ago, so would they be equally concerned if it were necessary that they accept today the public health conditions of fifty years ago. It has been within the last half century that the great medical discoveries have come to light whereby we have been enabled to fight systematically and effectively the world plagues which have harassed mankind since the beginning of history. For approximately the first twenty years of the modern public health movement, the entire time of the pioneer public health workers was devoted to the application of newly discovered sanitary principles in the eradication of such diseases as cholera and yellow fever. Their efforts were so successful in the course of a comparatively few years that both of these great plagues have long since been banished from the American continent and, we hope, will soon disappear from the entire earth. Following shortly after the control of yellow fever and cholera in North America came the great discovery of antitoxin as a means of fighting diphtheria and, still later, the discovery of toxin-antitoxin as a means of immunizing against that justly dreaded disease. As a result of the studies of the Sanitary Commission, appointed by the President in 1898 to study typhoid fever during the Spanish-American War, came the discovery of the methods by which typhoid is transmitted; and, still later, the development of a vaccine enabling us to immunize against typhoid fever.

These and many other new discoveries have created additional demands upon our national, state, and local governments for increased personnel trained in the science of disease prevention. However much progress our pioneer public health workers may have made, not until the World War did we realize that approximately twenty-five per cent of our young men between the ages of 18 and 32 years were physically incapacitated to the extent that they were of no military value to the nation in that emergency. A great majority of those discovered to be physically unfit during the World War were found to be so as a result of preventable conditions which had occurred during early childhood; and with this realization, the responsibilities of the public health worker and the educator have been greatly increased. We are now not only faced with the problem of controlling disease in epidemic or endemic form, but you as educators and we as public health workers have the responsibility of teaching the child from infancy through the preschool, and throughout the school age, his personal responsibility in the care of his own health. Great as has been the progress made in the promotion of the public health during recent years, we still have every day of the year approximately two million people in the

*Address given before the Health Section of the Colorado Education Association, Oct. 30, 1931. Dr. Foard is Assistant Surgeon of the U. S. Public Health Service.

United States who are incapacitated by preventable illness. These illnesses, to say nothing of the suffering and loss of life incident to them, are costing the people of our country more than three billions of dollars per annum. On the other hand, we are spending for prevention of disease each year, through our federal, state, and local governmental agencies, and through all private agencies engaged in public health work, less than one hundred million dollars a year. The proportion is about one dollar spent for prevention to thirty dollars spent for cure of disease or lost in time and wages incidental thereto.

And what can we say about modern equipment and personnel for overcoming this tremendous financial loss as a result of these preventable illnesses? Out of the early sanitary commissions organized from time to time to study epidemics of disease came the organization of state departments of health. For many years our state departments of health were handicapped by lack of funds to work with, as well as by lack of personnel interested and trained in the science of disease prevention. In many states the public health movement was also handicapped by political interference. Not realizing the importance of a healthy citizenry as one of the great factors leading to the general progress and happiness of the people of the nation, our public officials having the appointive power in their respective states and communities were too prone to consider public health administrative positions as political plums, to be handed out to the man who could control the most votes, regardless of whether he was interested in or equipped to fill the position to which he was appointed. Fortunately, and undoubtedly for the good of the people of the country, at least in so far as the public health is concerned, our presidents, governors, municipal and county officials are getting away from the old political practice of appointing public health executives for the votes they may thereby gain—or perhaps to the lowest bidder for the position in question. As a direct result, many of our state departments of health which were undermanned, poorly organized and poverty-stricken twenty or even ten years ago are now active in carrying out every known measure for the prevention of disease and the promotion of the public health. Among the leading state departments of health may be mentioned North Carolina as one of the earliest to be reorganized; Mississippi, California, Alabama, Massachusetts, Kentucky, Montana, New Mexico, Tennessee and New York are other states which have repealed or improved their obsolete public health laws (or, as in the case of New Mexico, have started from the beginning and have organized an entirely new state department) and are now carrying on efficient and modern public health programs under well organized departments and with trained personnel. Tennessee, one of the poorest states in the Union from the standpoint of assessed valuation of rural property and per capita wealth, has one of the most efficient, if not the most efficient, state health departments in the country. Many of our state health officers have long since come to realize that no matter how efficiently their state departments may be functioning, they cannot properly supervise and handle the local public health problems of every community of their respective states. They have, therefore, been urging for many years the adoption of full time local health service with the county as a unit. From experience gained through the years, it is now conceded by the leading public health authorities of the nation that the county unit is the most effective method of carrying out preventive disease measures and in general promoting the public health in local communities.

The first full time county health department to be organized in the United States—or in the world—was organized in Yakima County, Washington, on June 1, 1911. North Carolina followed with the second on July 1 of the same year. Progress was slow, however, in having the different states adopt the county unit plan and comparatively few were organized until after the close of the World War. The county unit plan has been fostered by the Rockefeller Foundation and the United States Public Health Service

through financial assistance extended to those counties desiring such organizations, and on January 1 of this year there were 557 counties in the country which were conducting efficient and highly satisfactory local health departments. The average annual increase has been fifty-two counties each year for the past five years. Considering that there are still about three thousand counties in the United States which have no efficient local public health programs, the progress is still slow; yet it is faster than appropriations are being made by Congress to meet the demands for cooperation. The states leading in the number of counties having full time county health units are Alabama first, with 54; Ohio second, with 46; Kentucky third, with 43; Tennessee fourth, with 42; North Carolina with 39. Georgia, Virginia, and Mississippi all have above thirty, and the other southern state have slightly fewer in number. In the west, California has 13, Washington, 8; New Mexico, 8; Oregon, 8; Arizona, 6; Montana, 4; while several of the western states and many of the New England states have none. New York, however, has recently submitted a law which if passed will make it compulsory for every county in the state having a population of more than forty thousand to maintain a full time county health unit.

You may be interested to know what such local health service costs and what types of work are carried on by local health departments. In full time county health work, as was formerly the case in state health work, the public health dollar was originally and principally spent for environmental sanitation. Little thought was given to the many phases of disease prevention which are now considered to be responsibilities of the public health worker. Quarantine of communicable diseases by placarding homes, the fumigation of homes on the release of communicable disease, and the eradication of nuisances—principally those which were offensive from an esthetic standpoint only—were some and about all of the duties of the early health officer. Today the public health dollar and the time of the health officer are spent in the conduct of educational programs looking to the general promotion of health conditions through immunization against typhoid, diphtheria, scarlet fever and smallpox; the application of specific sanitary principles such as the supervision and control of dairies and dairy products; the supervision of public water supplies, insuring safety through chlorination, filtration, etc.; the enforcing of laws and ordinances pertaining to the safe disposal of sewage and body wastes; the conduct of educational campaigns pertaining to the control of tuberculosis, venereal diseases, malaria, hookworm, pellagra, Rocky Mountain spotted fever, tularemia, and other specific diseases the control of which depends upon a familiarity on the part of the public as to how and under what circumstances these diseases occur. The organization and supervision and, in many instances, the conduct of prenatal, infant welfare, and preschool child diagnostic and corrective clinics are also definite responsibilities of the modern public health worker. So also are the organization of crippled children's societies, whereby all types of cripples may be given, privately or publicly, the advantages of medical and surgical corrective measures. The public health dollar of today is also being spent for the purchase of immune sera for use in the prevention and treatment of infantile paralysis. While all of these things are responsibilities which have been included during recent years, in modern health programs none is of greater importance in the development of a stronger, happier, and healthier future generation than is the general educational program which is being carried on jointly and cooperatively throughout the nation by the educator and the public health worker in the schools. While we frequently do not appreciate it at the time, probably no one phase of public health work is of so much importance or so far reaching in its effects as the annual examination of school children for the discovery of physical defects and the notification of parents as to defects found and the necessity for correction. Even though few of these defects may be corrected within six

months, a year, or two years after they have been noted, each time the child is personally contacted by the health worker in the school, whether by physician or nurse, or by the teacher in the interest of his physical well-being, an impression has been made which will follow him through life and will not only prompt him to be more interested in his own well-being, but will make him more amenable to suggestions at that time in the future when he may have children of his own. As a single phase of a modern health program in the school, let us consider oral or dental hygiene. I wonder how many there are here who can remember the pain and discomfort experienced as a child from a decayed, aching tooth—not from any intentional neglect on the part of our parents, but for the reason that they did not understand the importance of sound and well-cared-for temporary teeth as a necessity for good permanent teeth. I have in mind one western county which organized a full time and efficiently conducted health department in 1923. The first year of operation it was found advisable that a local dentist be employed to devote a few hours on two afternoons each week to the care of the teeth of children whose parents were more or less indigent. The service was most satisfactory in results obtained, yet there were many parents who hesitated to take advantage of free service, but who, for financial reasons, could not afford to spend the necessary money to have their children's teeth cared for. The matter was brought to the attention of the local dental society, with the result that the society as a body endorsed the employment of a dentist to give his entire time to the care of the teeth of all children in grade schools who might wish to apply for the service. As soon as the class discrimination was removed, the public health dentist was swamped with work, and I was told later by the president of the dental society that the child business of the private dentists in that county had doubled and trebled within a year's time. Two years after the health department was started, a second dentist was employed for full time, equipped with a truck and driver and complete dental office equipment mounted on the truck, including filing cabinets for keeping records, running water, heat, and electrically driven equipment. The duty of this second dentist was to visit every school in the rural areas of the county and care for the teeth of the children on the grounds of the school. That service has not only been going on in that particular county for five years, but it has been copied by several other counties in the same state and the beneficial results have been immeasurable, both from the standpoint of the present and the standpoint of the future health conditions of the children of the county.

The study of endocrinological deficiencies in the school child is another new field for the public health worker which promises many improvements in child health. Mental hygiene and child psychology are still others that are being given more attention in recent years in a few of our leading county health departments which have funds available.

The cost of the full time health service depends entirely upon what a community desires to pay for the prevention of disease and the promotion of the health of its people. Some local health departments are costing as little as twenty-five cents per capita per annum, while a few others are costing as high as $1.50 per capita. In the average community fifty cents per capita is a reasonable annual expenditure for local health service, and if the service is properly conducted by trained and experienced personnel, it will prove to be a most desirable step forward for any community. However, I believe it was Sidney Lanier who, in speaking of his southern cotton farmer, said, "There is more in the man than there is in the land." The same principle holds good in public health as in any other line of endeavor, and unless a health officer is placed in charge who has a public health viewpoint, he will be a failure in the public health field.

Briefly, what have been the accomplishments of the modern public health program? If we consider them over a period

of approximately fifty years, we may sum up the whole of our progress in the one statement, "The average life span of every child born in America has been increased from forty-six years in 1900 to fifty-seven at the present time." During the past twenty years since the first full time county health department was organized in Yakima County, Washington, the national death rate from all causes has dropped from a little more than fourteen per thousand population to eleven; the respiratory tuberculosis death rate has dropped from 138 per 100,000 population to sixty-eight; the infant mortality rate has been reduced from 129 per one thousand children born to sixty-eight; the typhoid fever rate has been reduced 80 per cent, and the diphtheria rate has been cut about 65 per cent. I do not presume to say that this record, one of which any movement should be proud, has been brought about solely as the result of more intensive county health work in the approximately 600 counties which are now carrying on more or less intensive local public health programs. It is a very definite fact, however, that greatest reduction in death rates and greater progress in general health promotion have come about in those states and counties which have given most attention to preventive disease and health educational measures. So great has been the contrast in results obtained that the full time county health unit plan is no longer looked upon with skepticism and doubt. The soundness of its principles are no longer being questioned by business men or looked upon as a fad by the general public. The establishment of intensive local health service has come to be considered an absolute necessity for every progressive rural community, and is more and more being recognized by business men as a strictly business enterprise which, when properly conducted, will pay greater dividends on the capital invested than any other investment to which the public may subscribe.

In closing let me again say that whatever progress we may have made has not been the result of the efforts of the public health worker only. The farmer in the remote areas of our rural districts is paying more attention to the sanitation of his home surroundings; the factory owner, the mill operator, the marine shipper, and hundreds of other managers of our great industrial enterprises, are coming to realize that it is good business to protect the health of their employees. Of more importance to the general movement for the promotion of the public health, however, has been the contribution of our teachers and educators of the country who, hand in hand with the public health worker, are attempting to instill into the minds of the youth of the nation the fact that they, themselves, from the standpoint of both the present and the future, have a personal responsibility in making their own communities and the nation as a whole a healthier country in which to live.

Curing Doctors' Bills

An article on "A Cure for Doctors' Bills" in the Atlantic Monthly for October, 1930, quoted Dr. C. Rufus Rorem, of the National Costs of Medical Care Committee, as saying "that patients of doctors united in association" (meaning private clinics) "pay less than 40 per cent of the amount they would have paid to independent practitioners for the same services." Here is what Dr. Rorem really does say in publication number eight of the Committee on the Costs of Medical Care:

"Private group clinics, through their available equipment and their co-ordination of medical specialists, are in a position to fulfill the basic requirements of good medical care with economies from which either or both the clinic members and the public may benefit."

This is Dr. Rorem's only statement regarding the cost of service in private group clinics as compared to the same service rendered by private practitioners and a comparison of his statement with the spectacular quotation made in the Atlantic Monthly will give a good example of the gross misstatements that are made in lay magazines when the author seeks to discredit the medical profession.

MEDICAL ECONOMICS*

REV. ALLAN H. ERB
Supt., Mennonite Hospital and Sanitarium
LA JUNTA

The problem of economics enters into every phase of human life today. "The Depression" is the common topic of conversation. "How is business?"—has well nigh replaced the threadbare "Nice day, isn't it?" as an introduction to relieve the tense moment that you have nothing to say. The assignment of this topic on the program of this Medical Society is a recognition that the problem of economics has invaded the field of medical and hospital care of the sick. As further evidence that medical economics is a problem we have the existence of a Committee on the Costs of Medical Care. Its purpose is stated to be to study the economic aspects of the prevention and care of sickness, including the adequacy, availability, and compensations of the persons and agencies concerned. Dr. B. B. Blotz in the December issue of Colorado Medicine points out that the title of this committee suggests to the public mind that the costs of medical fees are excessive. This is no doubt true, but it also suggests an attitude of the public which we who are responsible in dispensing service to the sick dare not ignore. It is the attitude that the costs of sickness confront them with a financial obligation which present economic conditions prevent them from meeting.

We (the medical profession, the nursing profession, hospitals) may take two positions in regard to this professed economic problem of the sick. First, we may assume that medical costs are at the lowest possible figure consistent with the best possible scientific care and that it is up to the sick to bear the whole burden of economic adjustment, or we may admit that medical costs might be reduced and mutually with the sick bear the burden of economic adjustment.

In all financial controversies between groups and classes the first position is the one usually taken. The present railroad situation is an illustration on this point. The business depression curtailed the operating income of the roads. Naturally they sought to reduce their operating costs. The employees insisted they were not overpaid and that dividends to stockholders should be reduced. Since the railroads needed increased revenue, a recent ruling called for an increase in freight rates. The public now cries that they are already overtaxed; one class or group is very willing to put the whole responsibility of adjustment upon the other.

It may be possible that in our particular problem there be a one-sided adjustment. Medical services never have been based upon a strictly commercial basis. Fees did not advance with the advancing market in stocks and bonds. To be consistent they should not decline with the crash in Wall Street; fees cannot be gauged by the changing barometer of Wall Street finances. The factors which enter into the production of qualified men and adequate equipment for the care of the sick are more or less static through the varying shades of prosperity and depression. The demand of the time has called for increased equipment with increased costs. The records would show that giving medical service has not proved to be a profitable business venture. With the increasing demands of the public for better trained doctors, better trained nurses and more elaborately equipped hospitals, these costs cannot decline. Fees already maintained have not been profitable.

The rewards for scientific endeavor have seldom been given in money and popular approval. Napoleon and Jenner were contemporaries. Napoleon is a household word and is known by every school boy; Jenner except to the medical profession is a strange name. Napoleon in his great wars destroyed thousands of lives. Jenner in his invention of vaccination saved millions; but the public that is profiting by his labor does not even know its hero. In the January 2 issue of the Literary Digest we have an account of a martyr scientist. Alfred Seymour Reinhart of Dorchester, Massachusetts, knew that

*Read before the Otero County Medical Society, La Junta, Jan. 13, 1932.

he was doomed to die of a heart ailment. He devoted his definitely numbered days to a systematic laboratory study of his own case; he refused all opiates lest they confuse his mind. "By his matchless martyrdom," said Rabbi Schulman, "he makes us stand with reverence in the presence of the possible greatness of the human spirit. Alone in a little room set aside for him in Thorndike Memorial Laboratory at the Boston City Hospital, he summed up the results of his studies of his own case, and on his death bed, despite excruciating pain and denying himself the relief that only drugs could offer, he dictated the final observations of a physician on his most intimate patient in the hope that his record might add to the store of medical knowledge." So well had he diagnosed his case that he was able to view subjectively each new pain, each recurring manifestation of the growth and spread of the disease within his own body. In the introduction to his notes he wrote:

"These notes are designed to constitute the observations of the natural history and course of a generally fatal disease and the memoirs of the subjective reactions of a patient to that disease. It is modestly hoped that here and there may be a statement which may prove of value in the elucidation of some medical problem involving the psychology of the sick room." Dr. Weiss plans to publish Reinhart's notes—to stand as a lasting tribute to a martyr to science.

I think from the remarks already made we have some reasons why in medical and hospital service we do not place the earned dollar upon the footing finance assigns to it in a purely business enterprise. To do so is to cut the heart out of our work and to transform it from an expression of the kindlier impulses of civilized man into a cold-blooded business affair. How can we carry this ideal to our patients and convince them that medical costs are not excessive?

First, by being and giving our best. Let us exalt our science, the act of caring for the human body, by consistently devoting our most and our best to that science. Our love for our science must commend ourselves to our patients.

Second, by a program of education teach the public their own sacred obligation of placing the care of the body as one of their first obligations. Dr. B. B. Blotz in his article in Colorado Medicine has correctly said "The belief that patients if they have the income, will pay is no longer tenable—pleasure cars, theaters, cosmetics and beauty parlors take up the slack." The public should know that sickness is inevitable and that "preparedness" is the only wise policy. It is unjust for the public to indulge in luxuries and waste their incomes and then in sickness look to the gratuities of the medical agencies for their care.

Third, since not all respond to the appeal of education the responsibility of providing for sickness might be brought to the public by some form of discipline. The nature and form of that discipline I am not able to recommend.

My arguments so far have been based upon the first assumption as to who should bear the burden of present economic adjustment. So far we have with all other classes and groups insisted that we have borne our share, and it is up to the other group to make the adjustment. Even though we have already shown that our position is one peculiar to us, are we altogether fair not to consider the patients' viewpoint?

Let us suppose a concrete illustration. Our patient belongs to the farming class living near Rocky Ford. He has some kind of abdominal ailment. His first problem is a correct diagnosis. He consults a good doctor, has the services of a good pathological and x-ray laboratory and receives a diagnosis demanding surgery. He is taken to the hospital and a laparotomy is done; he is in the hospital fifteen days. His friends want him to have the best of care so the doctor recommends a special nurse. At the end of fifteen days he assembles all his charges and finds a probable amount to $450.00. He has never been sick before and up till now he has not thought much of how to pay the bill, but how to get well. But now he begins to figure. His hogs are worth $3.50 per hundred weight. At that rate it will take sixty-five hogs to pay, but he has only twenty. His beets are

worth $5.00 per ton. It will take ninety ton to pay the bill, but he has only 100 ton and most of this must pay cost of production. He comes face to face with a real problem. He may struggle on for several years hampered by the economic hindrance of this expense, but he will no doubt be wiser next time. He will begin to estimate where he could save; he will no doubt decide to eliminate a special nurse, select a cheaper room, and cut his time shorter in the hospital.

Hospitals have already felt this tendency of the public. The American Hospital Association report last year showed only 65 per cent occupancy of available hospital beds. A local physician of one of our local hospitals reported that six patients in one month declined hospital services in favor of home care because of the financial saving involved.

Our modern healing system is far removed from the simplicity of an earlier day. If a neighbor took sick the other neighbors came in and took turns sitting up nights, a good natured mother brought over a stewed chicken, and a well-meaning grandmother applied some home remedies. Many times the patient did get well. But now the diagnostic clinic must be patronized, the patient must be taken to the hospital or the trained nurse called, a skilled dietitian must prescribe the food, and a highly trained well-paid specialist must treat the patient.

Certainly we will not take a backward step and eliminate these progressive steps in the treatment of disease. But is it not up to us to appraise carefully all resources and if possible eliminate mere luxuries? Can we not make our contribution in this present economic adjustment in preserving that which is truly progressive and scientific and cutting the irrelevant? To take a fair view in such an appraisement requires sane and unselfish judgment. The practitioner treating his patient with limited finances may be tempted to withhold further available resources of diagnosis and treatment, reasoning that he must preserve his client's money for his remuneration. The hospital may deny the patient a special nurse to make safe their own remuneration. Care should be exercised against this tendency.

However just medical costs may seem to be, will not the economic pressure force us to give the patient's side consideration? However ideal it may seem to the nurse that all nursing be done by registered nurses, some people will employ maids and get by. I know one hospital which kept only a few registered nurses and filled in vacancies with practical nurses and maids. Folks will, through economic pressure, take care of the sick at home, and no matter how ideal hospital care is, will set the hospital aside. Since about 80 per cent of surgery is elective, the practice of surgeons is also affected and a reduction of surgery cases is noted.

I will close this discussion by raising just one more question. Is the burden for the care of the sick rightly distributed? We have assumed that every man must bear his own burdens, that we have only individual responsibility. Is this correct? In such an important matter as the preservation of human life, is there not a social duty involved?

The Committee on the Costs of Medical Care has just completed a survey of the medical facilities of San Joaquin County, California. In this County a full public health program has been organized—84 per cent of the total medical bill was paid by patients and 16 per cent from tax funds. Public funds, however, accounted for 53 per cent of the total cost of hospital and out-patient service. Here is an illustration of the recognition by a community of the obligation of caring for the sick as not only an individual but a social obligation. Should not the whole community help in securing all that is necessary for the most advanced treatment of the sick? Should the community deny the modern advancement of medical science to any, or should they expect the social burden to be carried only by the medical, nursing, and hospital groups?

THE IDEALS OF MEDICINE*

A. LEE BRISKMAN, M.D.
COLORADO SPRINGS

There is an attraction, distant though fascinating, that lures the young man into the realms of medicine regardless of the many and oft repeated admonitions to the contrary. Certain young men may be "called" into the profession—perhaps are born to be doctors; their ability may be the result of inheritanee, but of this we know little. Neither do we know by what process a babe unborn may be destined for a profession. There are undoubtedly a limited number of men created for medical service—who were "called to be doctors when they were not yet called to be babies."

This spirit that permeates the subconscious mind is the earliest manifestation of a desire soon to activate itself into an invincible something—an ideal. This takes firm root in the mind and guides his footsteps along a path of duty and faithfulness or leads him through the gates of oblivion and forgetfulness so that his life becomes a physical existence rather than a realization.

The mind of the physician divides life into two distinct conceptions: one is the world of his everyday affairs, the world of actual contact with his patients; the other is the world of idealism, the kingdom of his mind, the ideal city of his better self. Herein live his companions, and it is here that he does things well. These two conceptions, though entirely distinct, reflect upon each other and establish an equilibrium between the minds of physician and patient. Thus he travels toward his ideal—toward a degree of perfection for which we all strive, but fortunately never attain. Here the physician learns to interpret, digest, and apply the principles given him in the scientific laboratory, thus conveying them to the laboratory of the living. He becomes dexterous with the sick, a healer worthy of the confidence of the afflicted. His diploma is a symbol of work well done and a passport to the realm of a higher science. Having applied himself in each department he leaves as a practitioner who may eventually concentrate his efforts in one particular specialty. It is only after general experience that he may, with a feeling of satisfaction, become a master in a special field.

The alert physician must appreciate the trend of modern preventive medicine. He would much prefer the prevention of one case to the curing of five. His motto becomes "It is better to prevent than to cure." The physician must keep abreast of the times; as laws and customs change, so does the conception of the nature and treatment of disease. He is anxious to teach the practice of medicine, the anatomy and physiology of the body. The ideal physician does not bury himself in the depths of his art or among his drugs. His culture and breadth of understanding create confidence among his patients. The equation must be equal, that mutual cooperation may be more perfect. He is a social leader at ease with problems other than those of a scientific nature. In a word, there are times when he is called upon to understand human nature with the skill of miscroscopic analysis.

The physician should devote a portion of his leisure hours to reading other than his texts. He peruses the works of masters and improves himself thereby.

As students, the embryonic physicians are taught the fundamental subjects upon which the profession is founded—anatomy, chemistry, physiology, pathology. Later, with the pathological picture in mind, acquaintance is made with disease, and diagnostic acumen perfected. Having labored over these fundamentals, they migrate to the corners of the earth to apply their knowledge. We note the striking success of a few, while others fall by the way and are forgotten. Need we ask why some had no standard by which to live, why they had cultivated no ideals, why they had failed to imbibe the majesties of the profession while they yet were students? Little do they realize that the practice of medicine is not all anatomy or chemistry, but these in

*Accepted for publication, November, 1930.

addition to their faithful application. The successful physician must select the right drug for the right patient at the right time—he must treat the patient, not "a case."

The physician of today enters a noble heritage, made so by generations of men who unselfishly have sought for mankind relief from its scourges. Although much has been accomplished, much remains to be done. "The best doctor is probably the one of whom we hear the least—a member of the great silent army of workers, the members of which strive not, neither do they cry, but to them is given the ministry of consolation in sorrow, need, and sickness."

The city of our mind is the one we build for ourselves; it is merely a conception evolved from the finest and most natural moments of our lives. Every physician should live a broad and well-rounded life. His ideals represent the creation of his mind resulting from experience and vision. Every physician should have a high conception of conduct with a clean and honest interpretation of his professional relationships. It is often said a physician is good, is a man of genius, a man of high caliber. This is often correct because of ideals formed early in life and realized through hard work and constancy of purpose. Successful is the physician who strives according to these principles. Without ideals, life is vanity, work is drudgery, and responsibility is slavery.

The truly successful physician has learned to depend upon his own resources. To create a need for himself, to fight for a place in the world gives evidence of strength. To depend upon the help and influence of other men is evidence of weakness. Let him replace fancy with experience; let him portray himself in the skill of his hands, in accurate judgment, and in the skillful application of facts. May there be a correlation between the knowledge obtained from the laboratories of science and from the laboratory of the human body.

Sir William Osler observed that those who cross the threshold of learning and enter the gates of knowledge and experience lead busy, useful, and happy lives. More could not be expected; a greater blessing the world could not bestow. "Busy, you will certainly be, as the demand is great. Useful, your lives must be, as you will care for those who cannot care for themselves, and who need about them, in the day of tribulation, gentle hands and tender hearts. And happy lives shall be yours, because busy and useful, having been initiated into the great secret—that happiness lies in the absorption in some vocation which satisfies the soul."

Statement by The National Committee for Mental Hygiene

"The dearth of competent psychiatrists is becoming a major issue in human welfare. It is no longer merely a matter of overcrowded mental hospitals in which the patients receive but momentary attention from the mental specialists . . . We are confronted by a matter amounting to a national emergency—one not alone of producing psychiatrists enough to meet the need, but one of producing, in large number, psychiatrists competent to handle the extremely involved problems for which their aid is more and more insistently requested."

In these strong words a committee of the American Psychiatric Association which has been studying the problem of psychiatric personnel summed up its conclusions on the matter. This picture of the need is not overdrawn. Of the approximately 160,000 physicians in the United States today, somewhat over 40,000 are specialists in the various branches of medicine, and of these but 1,600 are psychiatrists, or one in twenty-five. In other words, there are a hundred times as many doctors in physical as in mental medicine. This is out of all proportion to the magnitude of the problem of mental and nervous disease.

The National Committee for Mental Hygiene is mobilizing its forces for a concerted attack upon this problem. It has in the past availed itself of every opportunity to add to the number of available workers and, through the administration of fellowships and by other measures, has trained or helped to train scores of young doctors for important positions in mental hygiene work.

CASE REPORTS

THE TREATMENT OF ANURIA BY KIDNEY DECAPSULATION*

ROY P. FORBES, M. D., AND
G. B. PACKARD, JR., M. D.
DENVER

Edebohls[1], in 1903, proposed kidney decapsulation as a surgical treatment of Bright's Disease. For many years Edebohls' operation enjoyed considerable vogue, but results were generally disappointing, and today the operation is seldom performed in cases of chronic nephritis. However, in recent years, decapsulation of the kidney has come to be recognized as a valuable treatment for acute urinary suppression. Apparently Edebohls did not use the operation for this purpose, although he mentions the case of Whitacre[2] in which anuria of eight days' duration was relieved by renal decapsulation. This appears to be the first case treated by decapsulation. Recent reports by Randall[3], Krellenstein[4] and others show that kidney decapsulation may yield spectacular results in properly selected cases. Eisendrath[5] has recently classified the obstructive and secretory types of anuria and ably summarized the modern treatment under four procedures: (1) Fluid administration, (2) Nerve block, (3) Decapsulation, and (4) Ureteral catheterization.

The following case is of particular interest because the anuria followed appendectomy:

Mary N., aged seven years, complained of cramplike abdominal pains on July 5, when the maximum temperature was 100°. Castor oil given three times on July 4 was vomited, but magnesia was retained on July 5, when pains were less severe and less frequent. On July 6 the child was first seen by one of us (R. P. F.), who found some tenderness over the appendix, but no rigidity. The temperature was only 100.2°. Surgical consulation was advised and the patient admitted to Children's Hospital, and a gangrenous appendix removed (G. B. P.) in the evening of the same day. On admission the routine laboratory work showed a leucocytosis of 18,200 with 81 per cent neutrophiles. The urine contained a trace of acetone and albumen (one plus). The day following operation, the urine contained albumen (two plus) and granular casts. Fluids were withheld by mouth but administered freely by rectum and by hypodermoclysis for three days after operation, and the urinary output was considered satisfactory until July 9, when only two small voidings were noted. The patient voided a small quantity at 4 a. m. on July 10, and one-half ounce on July 11. Glucose, 10 per cent solution, 100 cc., was given intravenously and glucose and soda solution urged by mouth. Diathermy was given to the kidney region. The patient was afebrile, complained of no pain, and seemed to be in good condition until 6 p. m., when she said that she could not see. Convulsions began soon afterward and the patient continued in a deep coma until operation at 10:15 p. m. under spinal anaesthesia, using 50 milligrams of novocain in a one per cent solution. Blood pressure was 170/80 at this time. Nine hours after decapsulation of the left kidney the patient began to void and in the next 10 hours passed 35 ounces of urine. Unfortunately, nitrogen retention in the blood was not estimated until a few hours after operation, when the N. P. N. was found to be 83.33 milligrams and the creatinin 3.7 milligrams per 100 cc. of blood. Forty-eight hours later these figures had dropped to 40 and 1.7 and the blood pressure to 142/60. On July 18 the urine was free from albumen, the blood pressure continued to fall, and the patient was discharged in good condition on July 27.

Summary

A case of urinary suppression with hypertension, nitrogen retention, and convulsions was promptly relieved by decapsulation of one kidney. An apparently mild nephritis complicated acute appendicitis and the alarming symptoms developed six days after appendectomy. Nonsurgical treatment in-

*From Departments of Pediatrics and Surgery, University of Colorado School of Medicine.

cluding intravenous glucose and diathermy gave no relief. Edebohls' operation in cases of anuria of the nonobstructive type may be considered a valuable emergency procedure.

References

1. Edebohls, Geo. M.: Surgical Treatment of Bright's Disease, Frank F. Lisiecki, New York, 1904.
2. Whitacre, H. J.: Suppression of Urine, with Report of a Case Enduring Eight Days; Relieved by Decapsulation of the Kidneys, J. A. M. A. 40, 1409 (May 23) 1903.
3. Randall, J.: Case of Complete Anuria Following Pregnancy Relieved by Decapsulation of Solitary Kidney, J. Michigan M. Soc. 29, 639 (Sept.) 1930.
4. Krellenstein, I. B.: Toxic Degenerative Nephritis with Anuria Four Days Relieved by Bilateral Decapsulation, Am. J. Obst. and Gynec. 18, 277 (Aug.) 1929.
5. Eisendrath, D. N.: Anuria. Report of Nine Cases, J. Urol. 25, 421 (April) 1931.

PUBLIC HEALTH NOTES

Editor: J. W. AMESSE, M.D.

Communicable Disease Control

The report of the committee on communicable disease control of the White House Conference on Child Health and Protection, a report of 260 pages, is now available from the Century Company, New York City. In a recent number of the Child Health Bulletin published by the American Child Health Association, Dr. C. H. Halladay, Epidemiologist of the State of Maryland Department of Health, comments upon the value of the report as an aid and guide to health officers and to all those interested in the problems of communicable disease control as they pertain to childhood.

The report calls attention to the fact that nearly 3,000,000 cases of communicable disease are reported in this country every year. Standardization of rules, regulations, and preventive measures are urged, but emphasis is given to the fact that the problems of different localities are different and that a specific problem must be worked out to suit the conditions in a particular community.

The Physician as Health Worker

In 1928 the Detroit Department of Health inaugurated a plan of participation by the general medical practitioner in the public health program of the city. A beginning was made by eliminating all free clinics for diphtheria protection, and since that date all work has been done by the medical practitioner in his own office.

The enterprise has been carried out jointly through the Public Health Committee of the County Medical Society and the staff of the Department of Health. During the past winter, at ten conferences on communicable disease control, there was an average attendance of 235 physicians, and one-third of the membership of the Medical Society attended some one of the lectures. Preventive medical activities can be transferred gradually to the physician only through close working harmony with medical organization. At present there are 1,100 physicians in Detroit, or approximately 90 per cent of those who would be interested, who are cooperating in the diphtheria prevention program. The results indicate that 80 per cent of the school children and 70 per cent of the preschool group have received protection.

In addition to sponsoring post-graduate medical conferences, the Department of Health has inaugurated a program of popular health instruction and a system of home visitation and instruction of parents by public health nurses. When able to do so, the parents pay the physician $1 for each dose of toxin-antitoxin or toxoid and also $1 for the Schick test. When, in the physician's judgment, the parent is unable or unwilling to pay, the Department of Health reimburses the physician at the rate of 50c for each treatment and $1 for the Schick test. The material used is furnished without charge to all physicians, and in turn the latter reports each treatment by postcard to the Deparment of Health. On June 1 it was found that 52 per cent of infants between six months and one year of age had received protection, while for the preschool group 70 per cent had been protected. The cooperating physicians have been paid a sum

in excess of $100,000 or an average of $142 per physician.

Not only has the cooperative campaign resulted in the protection of a large number of children, but the diphtheria death rate has been reduced to one-fourth of the level existing prior to the beginning of the plan. The attitude of the medical profession toward the work of the Department of Health has been changed with the elimination of the antagonistic feeling which too frequently exists toward the work of the public health nurse. A beginning has been made toward the establishment of a health center in the office of each physician, and the opportunity is offered to expand the program of health conservation with medical cooperation into other fields such as tuberculosis and cancer control, periodic general examination, and the health of mothers and infants.

By L. O. Geib, M. D., and Henry F. Vaughan, Dr. P. H.—Journal American Medical Association, Aug. 8, 1931.

Physical Findings in Examinations of Preschool Children

The physical examinations of 648 preschool children enrolled in the parental and preschool health education demonstration, a joint project of the Denver County Congress of Parents and Teachers and the Denver Tuberculosis Society, have just been completed. While the enrollment at the preschool classes has greatly increased this year, the number of physicial examinations made is not increased in proportion due to the epidemic of grippe which was city-wide during the month of December. A few of the interesting facts from the medical histories and the health examination of these children are as follows:

Family Income: The children come from a representative cross section of the city. The family incomes range from nothing to more than sufficient for adequate living. The majority of families are from the middle sections.

Medical Histories: Of the 648 children examined the mothers report sixteen were clinic cases at the time of their last medical need. Forty have no family doctor, twenty-three report chiropractors or osteopaths as their medical advisers. Small incomes seem to have little deterrent effect on the number of parents calling a physician when their children are ill. Only as the range of the family income goes up do parents take the children to the family physician for a physical check. Food for thought is given when we find that these children who have had physical checks by their family physician seem to have as many physical defects as the children who do not have these checks made.

Immunization and Vaccination: The increase over last year in the number of children who have been immunized for diphtheria and vaccinated for smallpox is noteworthy. In 1930 one out of 7 children were immunized, and one out of 6½ children were vaccinated. This year, 1931, one out of 3 children have been immunized and one out of 4 children are vaccinated. The family physician has done the larger proportion of these preventive treatments.

Figures from the Physician's Check: Six hundred forty-eight children were examined. Three hundred two, or forty-six per cent, were referred to their own physician for the following reasons. One hundred seventy-four for further check and care of the nose and throat, twenty-four for heart check, forty-nine for circumcision or abdominal conditions, forty-two for nutrition, forty for orthopedic treatment, eleven for nervous conditions and faulty habits, and forty-six for other acute or chronic reasons. Only fifty-one of the 648 children could be termed "perfect" children. Forty-eight more had defective habits only, which needed correction, and two hundred forty-seven had conditions which while keeping them from the "perfect class" were not thought serious enough at this time to definitely refer to the family physician.

Denver Public Health Council

The annual meeting and election of officers of the Denver Public Health Council was held on Tuesday noon, January 12, at the Brown Palace Hotel. Forty were present. Dean Maurice H. Rees of the Univer-

sity of Colorado Medical School and Hospitals was elected president; Dr. B. B. Jaffa, vice-president; and Miss Jessie I. Lummis, secretary-treasurer. Members of the executive committee in addition to the officers for the ensuing year are Mr. Homer W. Anderson, Mrs. Kathryn Schulken, Dr. L. W. Frank, and Dr. James J. Waring.

The guest of the day was Dr. Estelle Ford Warner of the U. S. Public Health Service who spoke on the subject "Child Welfare in Colorado" and brought to the group a wealth of information gathered in her studies of public health activities in many states.

Dr. Warner called attention to the fact that we are all too prone when judging of results in the public health field to consider only part of the factors involved when these factors are always many and frequently closely and intricately interrelated. No longer is the criterion for judging public health activities contained in enumerating the number of cases handled or the number of visits made. There must be intensive accurate data kept and every factor involved considered before we can say, for example, that to lower the maternal death rate in a community certain activities must be undertaken, or to lower its infant death rate a community must include certain activities in its program.

A stimulating challenge was given by Dr. Warner to public health workers to plan carefully, to know just why a piece of work is done, to evaluate results all along the way, and always to know whither one is bound. Her plea was for many more small intensive pieces of work carefully evaluated that would point the way to a knowledge of what is happening, why it is happening, and what can be done about it.

School Sickness

School sickness, a complaint as real as measles, today menaces the health and happiness of thousands of American school children, according to Dr. James F. Rogers, Federal Office of Education consultant in hygiene and specialist in health education.

This disease, produced by "pressure" in the classroom, is characterized by nervousness, irritability, restlessness, anxiety, and a highly emotional state. The child affected usually has a poor appetite, sleeps badly, and has night terrors. He aggravates his own condition by self analysis and introspection. Athletic contests are injurious to him.

"In too many school systems," says Dr. Rogers, "children, no two of whom are alike even if they are twins, are expected to pass through the same courses at the same speed, or be labeled 'D,' 'dull,' 'retarded,' 'inferior,' or the like. The more sensitive child, who can not keep the pace in one or more subjects, does his utmost under the well-intended stimulus, and the result of the impossible struggle is an illness as real as measles, and unfortunately far more drawn out and full of misery."

Dr. Rogers says "the emotional life is older and more fundamental than the intellectual life, and if the former is not taken into account in education we get nowhere in bringing out the child's inherited possibilities. It is either powerful for physical and mental health and progress, or it is equally powerful for physical and mental depression and disaster."

(From "Mental Hygiene Bulletin," December, 1931).

The following comment from the Social Hygiene News of December 31, 1931, calls attention to the conditions that are apt to be aggravated by any "social dislocation" resulting from the ogres, Economic Depression and Unemployment:

1. The stability of ordinarily normal persons is threatened: The unrest and uncertainty which naturally develop in a civilization upset by a deviation from the customary make more difficult and at the same time more necessary than ever the character-building and character-education phases of social hygiene. Especially is this true with regard to young people whose view of life is now being formed.

2. Family relations are jeopardized: To gain employment many men who are heads of households must leave home, and women must often leave their families, resulting in

danger of broken homes and neglect of children.

3. Disease and vice thrive: The massing of large numbers of persons in employment camps and other concentration areas, often without adequate supervision, creates a "boom town" situation which fosters infection from disease and increases the possibility of commercialized prostitution.

4. The problem of treatment for venereal patients becomes acute: Many infected persons who went regularly to their physicians or to "pay" clinics for treatment in normal times can no longer afford to do this. The free clinics are so crowded that patients turn away discouraged. Without medical supervision, these men and women constitute a grave health menace.

5. Prostitution becomes a more serious menace: Unemployment is a factor in reducing the resistance of many young women to seduction and causing them more easily to become victims of the "madames" and pimps who make a living by exploiting women. Others resort to prostitution of their own initiative, especially in cities where the police authorities tolerate open display of this "business."

6. The danger of delinquency is greater: Work is a safeguard of the easily influenced boy or girl. Protective and recreational agencies must redouble their efforts to provide wholesome environment for jobless young people.

Fewer Children in Five-Year Group

The number of children in the United States under five years of age declined 128,840 during the last decade although the population for the country as a whole increased more than 17,000,000, the Department of the Interior announces in a statement just made public.

"This decrease," E. M. Foster, statistician for the Office of Education, asserts, "is not large enough numerically to make an appreciable difference in elementary school enrollments during the next five years, but indicates that unless the trend stops. first-grade enrollments may show appreciable decreases within the next ten years."

The statement follows in full text:

"The number of pre-school children in this country actually is decreasing, says the United States Office of Education. 'Although there were 17,000,000 more people in the United States in 1930 than in 1920,' says Emory M. Foster, chief statistician of that agency, 'there was a decrease of 128,840 children under five years of age. The year-by-year increase in first-year enrollments which has been a fact to be faced in school administration has been passed and we have reached an era of actually decreasing numbers.'

"Forty years ago America's population of children under five years of age was 7,634,-693. Ten years later the 1900 census showed a jump of this age group to 9,170,628. Another increase was noted in the 1910 census, when 10,631,364 boys and girls five years old or younger were registered in the United States.

"Ten years ago another sharp rise in this age group was noted from 10,631,364 to 11,573,230. This, apparently was the peak, for in the last decade, for the first time in our history, a decrease was registered in the number of children five years of age or younger in the United States. The drop was from 11,573,230 to 11,444,390, or a difference of 128,840 fewer children in 1930 than in 1920 (five years old or younger). The general population over the same ten-year period increased more than 17,000,000.

"Those under five years of age in 1930 were only 9.3 per cent of the total population while in 1920 the number of children in this age group represented in 10.9 per cent of the population."

A healthy, happy and efficient people are a State's most valuable asset. Conservation of material resources, vastly important though it be, pales into insignificance in comparison with conservation of human health and life.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

Editor: J. J. WARING, M.D.

Now comes Dr. E. C. Hill bearing gifts of books for the Library, and one notes with considerable satisfaction among them a copy of the 1834 edition of Beaumont's "Experiments and Observations on the Gastric Juice." This book was first printed in 1833 at Plattsburgh by Frederick P. Allen and reissued the following year by Lilly, Waite, and Company of Boston. Four years later an English edition was published by Sir Andrew Combes, of Edinborough, and in 1834 a German edition appeared. A second American edition was published in 1847 at Burlington, Vermont, by Dr. Samuel Beaumont, a cousin of the famous surgeon.

The Beaumont exhibit of manuscripts, papers, etc., in a special room at Washington University, St. Louis, is a shrine to be visited by every American doctor.

In the proceedings of the first meeting, Historical Section, of the County Medical Society of Denver will be found a splendid article on Beaumont by Dr. J. W. Amesse.

Dr. Nolie Mumey has presented to the Library a very attractive volume on "The Evolution of Aviation" written by himself and beautifully illustrated by Paschal Quackenbush. Although the book does not pretend to be an exhaustive history of aviation, nevertheless adults and juveniles will get a remarkably vivid and fairly complete picture of the development of a practical means of flight by man.

On the evening of January 6, Professor Henry E. Sigerist, the first distinguished visitor secured through the Dr. Arnold Stedman Fund, addressed the Denver County Society on the subject "The Medicine of the Renaissance." About one hundred and twenty-five members of the Society listened with rapt attention to a brilliant address delivered by a great scholar, in excellent English and with a charm of manner and flashes of wit that completely won his very appreciative audience. (See the review of the address by Dr. Macomber in this issue).

Dr. Sigerist is a Swiss, born in Paris in 1891, educated in Paris and Zurich and student of Medicine and Philology at the Universities of Zurich, London, and Munich. In 1924 he was Professor of History of Medicine at the University of Zurich and in 1925 Professor at the University of Leipzig and Director of the Institute of the History of Medicine as successor to Professor Karl Sudhoff.

He is editor of numerous important journals and books on the history of medicine, many of which will be found in the Library. His American lectures and several of his more important recent publications will appear shortly in English in this country.

Acknowledgements are due Dr. Frank W. Kenney, through whose thoughtfulness the Dr. Arnold W. Stedman Fund was established, which made it possible to secure a visit from Dr. Sigerist on this occasion and will bring over the years many other distinguished visitors to Denver.

Dr. Arnold W. Stedman was a greatly beloved general practitioner of the finest type and what may be called the "Old School" who was born in Maine on Washington's Birthday nearly one hundred years ago, came to Denver in 1870 and in 1871 took part in the organization and was Recording Secretary of the Denver Medical Association, progenitor of our Colorado State Medical Society and the most important society in the early history of medical organization in the State since its predecessor, the Jefferson Medical Society of 1860 and 1864 was disrupted by the Civil War and "perished from inanition." Stedman was later President of the Colorado State Medical Society, Vice-President of the American Medical Association founded in 1847, and President of the Colorado State Board of Health.

In 1880 he joined with a number of other physicians to form Denver's first Medical School, having in mind the advantage to young men with lung trouble of being able

to obtain medical training in Colorado's superb climate.

The Denver Medical School later was merged with the University of Denver and ultimately with the Medical Department of the University of Colorado. Stedman held the chair of Obstetrics and Puerperal Diseases at the University of Denver.

The list of his published Medical papers is small, but surviving colleagues and patients speak of him with rare affection. The Directors of the Fund are Dr. Robert W. Levy and Dr. James J. Waring.

BOOK REVIEWS

"Grace Revere Osler. A Brief Memoir," by Arnold Muirhead. Printed for private circulation at the Oxford University Press. 1931. Octavo, 56 pages. Illustrated.

Through the thoughtfulness of Dr. W. W. Francis, nephew of Sir William Osler, and the generosity of Mrs. Henry B. Chapin, sister of Lady Osler, the Library is the happy possessor of a copy of this delightful memoir of a gracious lady who was much beloved by the innumerable friends of her famous husband.

The author, Arnold Muirhead, is an English schoolmaster who in his undergraduate days, about 1923, was one of those fortunate "latchkeyers" of "the Open Arms," the home of Lady Osler and Sir William at Oxford.

The reviewer promises a delightful hour to the readers of this little book and as in the case of Mrs. Reid's book recently reviewed in this column, commends it especially to the members of the Medical Auxiliary.

JAMES J. WARING.

Modern Proctology. By Marion C. Pruitt, M.D., L.R.C.P., S. (Ed.) F.R.C.S. (Ed.) F.A.C.S. Atlanta, Georgia Associate in Surgery, Emory University School of Medicine; Assistant visiting surgeon, Grady Hospital; Proctologist, Crawford W Long Memorial Hospital and Clinic, Georgia Baptist Hospital, and Anti-Tuberculosis Association; Associate member American Proctologic Society; formerly resident surgeon, Westminster Hospital, London, England; Lieutenant Temporary and Honorary Commission, R.A.M.C., Major, U. S. M. C. with 233 Illustrations. St. Louis: The C. V. Mosby Company. 1931. 391 pages. Price, $8.00.

This very excellent book contains the latest methods in operative technique and treatment of various problems in Proctology. It is very clear and not verbose.

The chapter on hemorrhoids is especially well written with a complete description of the injection method for treating internal hemorrhoids.

There are several new methods given for the treatment of Pruritis Ani which have been used very successfully by the reviewer.

The presentation of this book should be of much value to the physician who only occasionally treats disorders of the rectum and colon.

A. J. CHISHOLM.

Surgical Pathology of the Genito-Urinary Organs. By Arthur E. Hertzler, M. D., Surgeon to the Agnes Hertzler Memorial Hospital, Halstead, Kansas. Professor of Surgery, University of Kansas. 222 illustrations. Philadelphia, Montreal and London: J. B. Lippincott Company. 227 pages.

This is the third monograph on surgical pathology of the ten the author proposes to write, three of which are in preparation at this time. The author, a general surgeon of high class and broad experience, has presented here in a most interesting style and language the surgical pathology of the genito-urinary tract as he sees it. Being neither a pathologist nor a urologist, he does not present the modern conception of either of the former. The work might more aptly be termed a clinical pathology than a surgical pathology, in that it deals so much with the clinical side as well as the pathogenesis and the histology of the morbid processes. The author's presentation of the pathology of the prostate gland is fairly well in line with the views of the pathologist and of the urologist, but his chapter on the pathology of the kidney certainly is not in accordance with the accepted and proved concepts of modern urology.

Interestingly written and sparkling here and there with wit and even sarcastic aspersion, the reader is entertained throughout.

Following each chapter a liberal bibliography of references to the literature is added, and each is briefly abstracted by the author. The reviewer feels this is to be a valuable feature of the work. It supplies an abundance of supplementary reading of the best authors on the subject of the immediately preceding chapter.

There are 222 illustrations on excellent halftone (?) paper which are very excellent and helpful. They represent both the macroscopic and microscopic study.

Withall, the work is well worth the reading.

J. B. DAVIS.

Simple Lessons in Human Anatomy. By B. C. H. Harvey, M. D. Professor of Anatomy, University of Chicago. Chicago: American Medical Association. 427 pages. Price $2.00.

Human anatomy, the essential foundation on which the practice of medicine is based, has undergone considerable modification in the medical curriculum since the time of Vesalius. In the ancient days it was the chief subject taught in the medical schools. Other subjects, physiology, pathology, and pharmacology, were later detached from it and formed into separate departments of study. Anatomy became defined more and more as a morphologic study. Morphology by itself is drab and meaningless. Anatomy cannot be pursued intelligently when function and development are left out of consideration.

To one who has been deeply interested in the teaching of human anatomy for a number of years, the publication of "Simple Lessons in Human Anatomy" comes as an answer to a fervent prayer—a book that premedical students might be obliged to read and understand before they enter into the technical study of human anatomy. It appears to the reviewer that one of the important reasons for poor scholarship of students in the medical course in anatomy is an utter lack of a general knowledge of anatomy and physiology. While an attempt is made to give the student some of this "background" after he has arrived in the medical school, time does not permit very much in this direction. Harvey's book sup-

plies the material for an excellent background for the student who wishes to study intelligently the technical detail of the human body. Further, a careful perusal of this book should serve to awaken and stimulate that essential quality—curiosity—which has all but disappeared in the average American student.

Simple Lessons in Human Anatomy is written in a fascinating style. Anyone who is at all curious about the human body will be well repaid in reading Dr. Harvey's book.

IVAN E. WALLIN.

"Proceedings of the Clinical Staff Society of the Presbyterian Hospital of Colorado," Vol. 1, 1931, published by the Presbyterian Hospital Association of Colorado, pp. 131, numerous illustrations. Price 75 cents.

This little volume, a pioneer in its field, represents the case reports presented at the regular meetings of the Staff of the Presbyterian Hospital. It reflects great credit upon this Staff and in general upon the medical profession of Colorado. It also clearly shows why the average doctor is much more regular in his attendance at Hospital Staff meetings than at those of the County Society. As long as staff meetings bring the doctor to the bed-side and to the autopsy table they will hold his interest. They are the equivalent of "Diagnostic Clinics" which are always good drawing cards. The very method of conducting a staff meeting is all to the good and superior to that of the County Society. A paper read is a paper dead! The rustling of the wandering wings of attention is mingled with the fearsome rustling of the unfolding manuscript! And so day by day we witness the development of sturdy off-shoots at the expense of the stock. It ought to be possible to have both a vitalized County Society and live Hospital Staffs.

Many matters in this volume are deserving of comment. The leading article by Kenneth D. Allen on "Bone Tumors" is splendid. The co-operative Study of Impetigo neonatorum is worthy of the highest praise. Congratulations are due to Dr. Mumey and his editorial staff.

JAMES J. WARING.

Medical Jurisprudence. By Alfred W. Herzog, Ph. B., A. M., M. D. Counsellor at Law. Editor of the Medico-Legal Journal, Indianapolis: Bobbs-Merrill Co. 1931. One large volume. $15.00 delivered.

This book has been written for lawyers and physicians as a practical guide to aid them in medico-legal matters. It does not go deeply into diagnosis or treatment, which may be found in text-books on medicine and surgery, but points out to the lawyer as well as to the physician matters which must be taken into consideration in cases reaching or likely to reach the courts.

The author draws particular attention to the weak points in medical attack or defense and supports his conclusions with numerous citations to legal decisions as an aid to lawyers in the trial, argument, and briefing of cases.

The user will find this book to be decidedly different from anything yet published on medico-legal matters. It is not a re-hash of other books on legal medicine or medical jurisprudence but the finished product of an expert who has practiced law and medicine hand in hand for a period of many years and who has specialized in this one subject.

Dr. Herzog has held many important positions on the surgical staffs of several large eastern hospitals. His practice has not been confined to internal medicine but has covered obstetrics, gynecology, general major surgery, eye, ear, nose and throat surgery, and in fact the whole domain of medicine and surgery.

Owing to his versatility and wide knowledge of medicine, he was frequently called as medical expert which resulted in his becoming interested in the study of law. He successfully passed the bar examination in New Jersey and was admitted to the practice of law in 1896. In 1910 he was admitted to the bar in New York and has continued in the practice of law and medicine until the present day. His legal practice has been varied, but has consisted largely of cases embracing medico-legal questions.

Dr. Herzog's services are eagerly sought by other attorneys and physicians to brief their cases and to act in an advisory capacity in cases where a thorough knowledge of medical jurisprudence and legal medicine is necessary.

His long experience in both law and medicine has qualified him as an authority on medico-legal science and enables him to discuss the subject in language understandable by both professions.

Roentgenologic Studies of Egyptian and Peruvian Mummies. By Dr. Roy L. Moodie, professor of paleodontology in the College of Dentistry at the University of Southern California, and paleopathologist to the Wellcane Historical Museum of London; formerly professor of anatomy and research librarian with the University of Illinois at Chicago. Chicago: Field Museum of Natural History Press. 1931. Price $5.00.

The results of studies made, by means of the x-ray, of mummified remains in the Field Museum of Natural History are presented in this book. It is in quarto size (9 inch by 12 inch pages), and contains 66 pages of text and seventy-six photogravure plates made chiefly from roentgenograms prepared in the division of roentgenology of Field Museum by Miss Anna Reginalda Bolan, formerly assistant professor of roentgenology and photography at the University of Illinois.

The x-ray pictures in the book are chiefly of human beings, including made and female adults, and children, but there are also a number showing mummified animals. Various pathological conditions are revealed in them. Most of the specimens are from the collections at Field Museum.

Among the subjects covered in Professor Moodie's text are the following: the development of roentgenologic study of mummies; summaries of mummification as practised in North America, ancient Egypt, and pre-Columbian Peru; a detailed report and pathologic interpretation of roentgenograms of Egyptian mummies, including cases of arthritides, arteriosclerosis, oral diseases, and diseases of the soft tissues; a detailed report and pathologic interpretation of roentgenograms of Peruvian mummies, including cases of arthritides, arteriosclerosis, otitis media, mastoiditis, oral diseases, injuries, tumors, uta, nasal disturbances, otosclerosis, etc. There is also a report on ancient trepanned Peruvian skulls in Field Museum, contributed by Professor Frank E. Wood. An appendix on mummified animals of Egypt and Peru covers the technique of embalming, cost and purpose of mummification, and reports and roentgenologic interpretation of mummified anthropoids, other mammals, avifauna, reptiles, fish, and mollusks.

The Field Museum roentgenological laboratory in which the roentgenograms for illustrations in this book were produced is equipped with the most complete and modern apparatus, presented to the museum by Stanley Field, president of the institution.

Professor Moodie's book is published in an extremely limited edition. It constitutes Volume III of the Anthropology Memoirs Series of the Museum.

Heart Disease. By Paul Dudley White, M. D., Instructor in Medicine, Harvard Medical School; Physician. Massachusetts General Hospital, Boston. New York. The MacMillan Company. 1931. 885 pages.

Rarely does so pleasant a task fall to the reviewer as in the present instance. The title, "Heart Disease," implies a narrow field, but the reader will find much more than suggested by this simple name. Not only does the author indicate a thorough familiarity with heart disease, but one is impressed that with this special knowledge there is combined the art of the physician of the old school.

This monograph is divided into four parts. In the first the various means of examination are considered.

Dr. White's suggestion in connection with the history of the patient that "it is better to interrupt as little as possible" and other portions of this chapter suggest that infinite patience expended in this part of the examination of the cardiac patient may be amply rewarded.

An interesting feature is the incorporation of the original communication dealing with historical advances in cardiovascular knowledge. Since many of these appeared in foreign literature, this method of placing these original sources so readily accessible renders the volume especially valuable. The translations are excellent.

The details of physical examination and the interpretation of signs are well covered. Especially valuable are the chapters devoted to roentgen and laboratory methods. Electrocardiography is amply considered without too great detail. Subjects still in dispute are given sufficient but not undue attention.

In Part II the etiology and types of heart disease are presented in considerable detail. Part III deals with structural changes and Part IV with the various functional changes encountered with an independent of structural change in the heart and vessels.

An extensive bibliography follows, which is unique in that it is rather elaborately classified. With characteristic modesty the author states, "Some of the more notable or pertinent publications are listed." To the reviewer it appears that nothing notable or pertinent has been omitted. A very carefully prepared subject index renders this work of added value as a reference. Each reference in this classified bibliography appears not only in the subject index, but also in a special bibliography index. This will appeal to one who has spent hours in finding articles to be consulted in any intensive study; and it is to be hoped that in future editions the author will continue this feature with such additions of current work as merit inclusion.

There appears to be nothing to criticize, unless it be that considerable detail is given to noncardiac conditions. By the general practitioner and the cardiologist White's "Heart Disease" will be widely used as a constant reference work.

CLOUGH T. BURNETT.

Approved Laboratory Technic. Prepared under the auspices of the American Society of Clinical Pathologists by John A. Kolmer, M. D., Ph. D., D. Sc., Ll. D., Prof. of Pathology and Bacteriology, Graduate School of Medicine, University of Pennsylvania. Professor of Immunology and Chemotherapy, School of Medicine, Temple University; Head of the Dept. of Pathology and Bacteriology, Research Institute of Medicine, and by Fred Boerner, V. M. D., assisted by C. Zent Garber, A. B., M. D., and the Committee of the American Society of Clinical Pathologists. D. Appleton and Company, 1931, pp 622 with eleven colored plates and three hundred illustrations. Price $7.50.

This work is published in an attempt to standardize laboratory methods so that more credence can be placed on results thru the use of accurate and reliable apparatus and reagents. It is the most complete work of its kind.

Section I. deals with general laboratory methods such as the use and care of the microscope and methods of micrometry. There are 25 pp. devoted to methods of housing, feeding, inoculating, bleeding and autopsy of animals and to the diagnosis of animal diseases. To avoid undue labor, not to mention needless expense to the patient, the authors submit suggestions for routine and special laboratory examinations.

Section II. This treats with clinical pathological methods in the examination of blood and urine and kidney functions with interpretation of results. Methods for the collection and examination of sputum, stomach contents, bile and duodenal contents are adequately presented. When we recall the many functions attributed to the liver, how it deals with fats, carbohydrates and proteins, formation of fibrinogen, its detoxicating power and biliary function, we realize that there is no one ideal test which will tell us the state of health of the liver. While the qualitative Van den Bergh reaction will distinguish between obstructive and hemolytic jaundice, the presence or absence of bilirubin in the urine will give us the same information. Chapter XI treats briefly with liver functional tests. The remainder of the section is given over to examination of feces, exudates and transudates and cerebrospinal fluid.

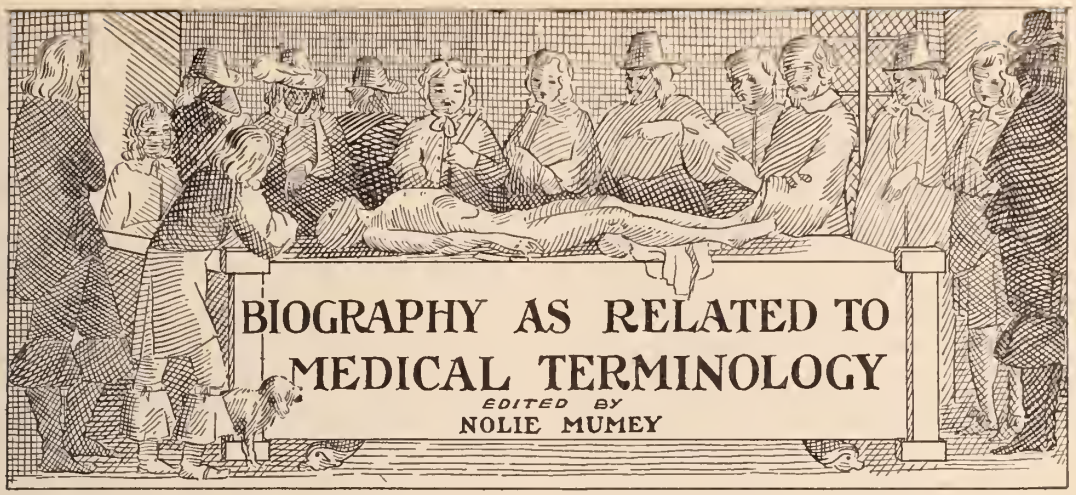
Section III. Bacteriological Methods. This section is remarkable for its completeness and manner of presentation. The more common bacteria are beautifully illustrated. The terminology adopted by the Society of American Bacteriologists is used together with the more familiar designation.

Section IV. Methods for conducting agglutination tests, Kolmer complement fixation, tests for syphilis and bacterial diseases, blood grouping and precipitation tests for syphilis.

The last section of clinical methods should read chemical for it deals with preparation of standard solutions, blood chemistry, chemical examination of urine, examination of milk and other foods and toxicological examinations. There is a brief chapter on basal metabolism. One page is devoted to early diagnosis of pregnancy. The rabbit ovulation test is illustrated. The last chapter by William C. McCarty presents methods for microscopic examination of tissue.

In these days where laboratory procedures are carried out largely by non-medical technicians it is of utmost importance that they follow a more or less official method that bears the stamp of authority and that the technic and reagents conform to the standards set down in this volume.

A. W. FRESHMAN.



LAENNEC

(Continued From January)

Arriving in the great capital he became attached to the Charite Hospital where he came under the influence and guidance of Jean Nicolas Corvisart (1755-1821), the distinguished master who revolutionized the teaching of medicine by stressing bedside observation and post mortem examinations. Laennec at various times came in contact with such distinguished physicians as Bayle, Bichat, Dupuytren, and Pinet. His fortunate association with Corvisart for three years gave him an unusual opportunity which he utilized for making detailed studies of some four hundred cases. The histories were carefully written and formed a foundation for his future researches.

Laennec's first important contribution appeared in the **Journal de Medecine**, 1802, **Histories d' Inflammation de Peritoine.** In 1803 he took the prizes in medicine and surgery and began his lectures on morbid anatomy. He was well versed in Latin, English, and German and after arriving in Paris took up the study of Greek. In 1804 he wrote his doctor's thesis, **Propositions sur la Doctrine d' Hippocrate appliquee a la Medecine Partique.**

For five years after graduation, Laennec was chief editor of the **Journal de Medecine;** he also gave a course of lectures on pathological anatomy. In 1816, he was appointed chief physician to the Necker Hospital; in the same year the idea of the stethoscope occurred to him.

At that time the means of diagnosing diseases of the heart and lungs were as follows: First, **percussion,** invented by Auenbrugger; second, **palpation,** whose exponent was Matthew Baillie; third, **non-mediate auscultation,** which was done by putting the ear to the chest wall. There was need of such an instrument which was invented by Laennec during the examination of a patient. "In 1816 I was consulted by a young woman labouring under the general symptoms of diseased heart, and in whose case percussion and the application of the hand were of little avail on account of the great degree of fatness. The other method just mentioned, immediate ausculation, being rendered inadmissible by the age and sex of the patient, I happened to recollect a simple and well known fact in acoustics, and fancied at the same time that it might be turned to some use on the present occasion. The fact I allude to is, the augmented impression of sound when conveyed through certain solid bodies, as when we hear the scratch of a pin at one end of a piece of wood on applying our ear to the other. Immediately, on this suggestion, I rolled a quire of paper into a kind of cylinder, and applied one end of it to the region of the heart and the other to my ear, and was not a little surprised and pleased to find that I could thereby perceive the action of the heart in such a manner more clear and distinct than I had ever been able to do by the immediate application of the ear."

(To Be Continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

MEDICAL BOARD PROCEEDINGS*

THE Board of Medical Examiners met on January 5 and 6 and considered nine applications for licenses to practice medicine, eight applications for licenses to practice chiropractic, eight complaints for the revocation of licenses of chiropractors, and one complaint for revocation of the license of a doctor of medicine.

All of the applications for licenses to practice medicine or chiropractic were granted. Two of the medical applications were for reinstatement after revocation. All but one of the medical applicants had previously been licensed in other states and were licensed in Colorado on credentials.

Only one applicant was required to take an examination. This is most unusual. Until October, 1931, there never had been a meeting of the Board at which there had been less than three applicants who were required to take examinations, and usually there was a large number. In October, 1931, only one took the examination, and he was a hold-over from the previous quarter at which time he had failed to pass and under the rules of the Board was entitled to another chance. The sole examinee in January was a new applicant, who passed with a high grade. The reason for the reduction in the number of applicants for licenses to practice medicine is found in the fact that under the most recent amendment to the Medical Practice Act, the Board is imposing more strict conditions of licensure.

Of the eight complaints before the board against chiropractors, the Board had time to take evidence in only five cases. All of these resulted in revocation of license. In four of the five cases the chiropractors had been using electric therapy in various forms; in the other case the chiropractor had been injecting an autogenous serum which he prepared from the blood of the patient, another autogenous preparation made from the urine of the patient, called the "autobiochemic treatment," and had been treating cancers with Koch's Cancer Cure.

The chiropractor last mentioned is W. Gano Compere of Pueblo. He testified that he was assisted in his work by a doctor of medicine, who is a member of the Pueblo County Medical Society. This doctor of medicine testified that he was a medical director of two institutions in Pueblo and that his services consisted of diagnosing cancers and prescribing the treatment therefor. At Compere's institution he diagnosed the cancers and prescribed Koch's Cancer Cure. At the other institution he diagnosed the cancers and prescribed the proprietor's cancer paste, although the proprietor had no kind of a license to practice the healing art in Colorado. This doctor of medicine readily admitted that he did not know the formula of either remedy which he prescribed. Besides revoking Compere's license to practice chiropractic, the Board ordered that the doctor of medicine who was assisting him be given a thirty day notice of hearing at the next quarterly meeting of the Board.

The medical license of Dr. Benjamin Replogle, M. D., of Fort Collins was revoked for unprofessional and dishonorable conduct.

Numerous other matters came before the Board for consideration, some resulting in resolutions ordering licentiates to appear at the next meeting for hearing on the revocation of their licenses, and others resulting in private censure without the institution of formal disciplinary proceedings.

*The Colorado State Board of Medical Examiners has kindly offered to supply Colorado Medicine with a digest of such of its quarterly proceedings as are suitable for publicity, and we are pleased to present herewith the digest of the first 1932 meeting.

DR. JOSEPH C. BLOODGOOD OF THE MEDICAL FACULTY OF JOHNS HOPKINS UNIVERSITY, BALTIMORE

Will be the guest of the
Clincial and Pathological Society of Denver
on
February 25 and 26, 1932

During his stay in the city, Dr. Bloodgood has kindly consented to hold two Microscopical-Pathological Clinics with a concluding lecture on the evening of February 26.

Program

Feb. 25—At the Colorado General Hospital—4200 E. 9th Avenue. Clinic—10 to 12 a. m.—3 to 5 p. m. Dr. Maurice H. Rees in charge.

Feb. 26—Colorado General Hospital. Clinic—10 to 12 a. m.—3 to 5 p. m. Dr. Maurice H. Rees in charge. Slides of Bone Tumors.

Evening at 8 P. M.

Auditorium of the Morey High School, E. 14th Avenue and Clarkson Street, Dr. Bloodgood will deliver a lecture with a Lantern Slide demonstration of "What Every Doctor Should Know About the First Sign of Cancer."

Dr. Rees has generously extended to the Society the facilities of the State Hospital for these Clinics, and will provide miscroscopes to the number of fifty, in addition to four lanterns running synchronously for projection of slides, and for the exhibition of bone tumor presentations for radiologists and surgeons. A projector for tissue slides is available. You are invited to bring photomicrographs or lantern slides. Those who wish may bring short case reports of bone tumor cases, including x-ray films and slides in lantern slide form. Please do not disclose the diagnosis if already made until such time as Dr. Bloodgood asks for same during his demonstration.

Members of the Medical, Dental and Nursing Professions reached by this notice throughout Colorado and Wyoming are cordially invited to avail themselves of this opportunity to hear Dr. Bloodgood.

The Committee having this matter in charge would be pleased if Radiologists and Pathologists desiring to attend these Clinics would send in their names, also such slides (tissue or bone) they may wish to present with a description of same for classification to Dr. Maurice H. Rees, Colorado General Hospital as early as possible. Further information concerning the Clinics may be obtained by writing Dr. Rees, c/o Colorado General Hospital.

Committee in Charge of Clinics

Maurice H. Rees, Chairman.

Leonard Freeman	Mallory Catlett
Casper Hegner	Philip Hillkowitz
A. J. Markley	W. W. Wasson
Cornelius De Bey	E. F. Dean
W. N. Dennis	I. C. Brownlie
S. B. Childs	W. W. Williams

By the Committee

Robert Levy — James J. Waring, Chairman
Melville Black — F. W. Kenney, Secretary
Thomas Carmody.

BEFORE YOU INVEST—INVESTIGATE!

THE slogan of the Better Business Bureaus, borrowed above, was never more appropriate than during these strenuous economic times, when promoters of every kind are redoubling their efforts and painting their questionable offers in gaudier colors than ever.

Within the past month several instances have come to the attention of the Executive Office staff. Lacking sufficient facts to justify prosecution, it might be libelous to mention names in these columns. Therefore each doctor must be wary of each new investment suggestion, especially those which seem designed for the sole benefit of the medical profession. Though it may look like a gift from the gods, investigate. Call the nearest Better Business Bureau, or get in touch with the officers of the State Medical Society.

The general public realizes almost as well as does the profession the fact that physicians' fees are too frequently the last item in the family budget. Those seeking to milk the doctors of their savings also realize this, and so they frequently design attractive propositions for financing the doctor's accounts, planning to lend patients the money for their operations or their hospitalization on the "character loan" idea. Too often the doctor signs on the dotted line and then find that, in addition, he is obligated to buy stock in the concern. There are many reliable and long-established industrial banks which conduct such business on a business-like basis, without stooping to questionable stock-selling schemes.

Sometimes they operate under names indicating that they are collection agencies. New and unheard-of collection companies may be dangerous.

Some of these schemes are perfectly legitimate, some soundly financed and some being just honest gambles. Some are highly questionable, some are dishonest. The Better Business Bureaus invariably have the information, and they are cooperating with the officers of the State Society to save members from loss. Before you invest—investigate!

THE AMERICAN COLLEGE OF PHYSICIANS

The sixteenth annual Clinical Session of the American College of Physicians will be held in San Francisco, California, April 4-8, 1932. The headquarters in San Francisco will be the Palace Hotel, where the general scientific sessions, registration, and exhibits will be held. Clinics will be conducted in various hospitals and institutions in San Francisco and nearby communities.

The attention of the secretaries of various societies is called to the above dates, in the hope that their societies will select non-conflicting dates for their 1932 meetings.

WASHINGTON SELECTED AS PLACE FOR SIXTY-FIRST ANNUAL MEETING OF AMERICAN PUBLIC HEALTH ASSOCIATION

The 200th anniversary of the birth of George Washington will be celebrated during 1932 with appropriate ceremonies in Washington, D. C. To participate in various features of the celebration, many associations have decided to hold their annual conventions in Washington next year. The American Public Health Association, oldest and strongest organization of its kind on the continent, is one of those. Its Sixty-first Annual Meeting will be held in Washington from October 24 to October 27. The Willard Hotel will be headquarters.

The Annual Meetings of the American Public Health Association attract an attendance of about 2,000 from every state in the Union, from Canada, Mexico and even from abroad. The scientific programs are planned to interest health officers, nurses, food and nutrition experts, sanitary engineers, school physicians, directors of hospitals, laboratories and clinics, child and industrial hygienists, and specialists in all branches of public health.

The Program Committee will begin its work at a meeting to be held in New York early in January.

The Local Committee in Charge of Local Arrangements has already begun to function, under the direction of the General Chairman, Dr. William C. Fowler, Health Officer of Washington.

Additional information may be obtained from the office of the American Public Health Association, 450 Seventh Avenue, New York, N. Y.

PRIZE FOR RESEARCH ON GOITER

The American Association for the Study of Goiter again offers an award of Three Hundred Dollars ($300.00) for the best essay based upon original research work on any phase of goiter presented at their Annual Meeting in Hamilton, Ontario, Canada, June 14th, 15th and 16th, 1932. It is hoped this offer will stimulate valuable research work, especially in regard to the basic cause of goiter.

Competing manuscripts must be in English and in the hands of the Corresponding Secretary, J. R. Yung, M. D., Rose Dispensary Bldg., Terre Haute, Ind., not later than March 15, 1932. Manuscripts arriving after this date will be held for the next year or returned at the author's request.

The first award of the 1931 Kansas City, Mo., meeting was given Dr. Bruce Webster, Presbyterian Hospital, New York City, "Studies in the Etiology and Nature of Simple Goiter as produced Experimentally in Rabbits."

Honorable mentions were awarded as follows: Drs. W. H. Cole and N. A. Womack, St. Louis, "Experimental Production of Pathologic Lesions of the Thyroid Gland by Infective Means." Drs. J. Lerman and J. H. Means, Boston, "The Gastric Secretion in Exophthalmic Goiter and Myxoedema." Dr. C. O. Rice, Minneapolis, "Life Cycle of the Thyroid Gland in Minnesota."

Dr. M. O. Shivers of Colorado Springs is the President of the American Association for the Study of Goiter.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Medical society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

DENVER COUNTY

The annual meeting was held January 5 in the auditorium of the Capitol Life Insurance Company Building, Dr. J. W. Amesse, presiding. Dr. Thomas R. Thorn was proposed for membership. Dr. Gerald M. Frumess was elected to membership.

Dr. S. D. Van Meter presented a letter suggesting a new plan for the care and treatment of the indigent sick at the Denver General Hospital. On motion of Dr. Van Meter the letter was referred to the Committee on Public Policy and Legislation, together with any similar suggestions already on file or received in the future, the Committee being instructed to report at the next business meeting.

Annual reports of all officers, committees, and the Board of Trustees were accepted.

Dr. Amesse delivered his presidential address, and in his usual concise manner predicted the future of medicine should "State Medicine" continue to develop in the next ten years as it has in the past decade. He pointed out that in Germany and other countries where State Medicine has been adopted, not only were medical men dissatisfied, but the public as a whole was generally dissatisfied. He called attention to attempted legislation in many states seeking to jeopardize the future of practicing physicians. He took a rap at the federal government in regard to the movement for more and larger hospitals for ex-service men with non-service-connected disabilities. In conclusion he said: "With our priceless heritage of professional freedom to protect, with our young confreres joining the ranks to the number of four or five thousand a year and who must be guaranteed the same freedom, is it not incumbent upon us to devise ways and means, honorable and ethical, to circumvent this movement? 'Fidelity to the present and its problems is the best safeguard of tomorrow,' but we may well augment such security through militant organizations which will resist revolutionary changes in an ancient art."

Officers were elected for 1932 as follows: President, Lorenz W. Frank; vice president, James A. Philpott; treasurer, Henry W. Stuver, re-elected; secretary, Hamilton I. Barnard, re-elected; member of Board of Censors for five-year term, Harold L. Hickey; member of Board of Trustees for five-year term, William H. Halley.

Delegates elected for two-year terms are: W. C. Finnoff, J. A. Philpott, H. S. Finney, C. F. Kemper, J. M. Shields, H. G. Garwood, J. S. Bouslog, E. G. Faber, C. H. Darrow, W. B. Yegge, W. R. Waggener, and O. S. Fowler. Alternates are: Maurice Katzman, J. M. Foster Jr., W. M. Bane, C. E. Cooper, E. J. Perkins, W. A. Sedwick, J. R. Jaeger, R. G. Packard, H. W. Snyder, L. V. Sams, V. E. Sells, J. G. Ryan, and Thad P. Sears.

Attendance at the meeting totaled 151.

H. I. BARNARD, Secretary.

EL PASO COUNTY

Mrs. F. M. P. Taylor of Colorado Springs has recently announced the gift of a new library building to Colorado College. This building will greatly increase the facilities of the College and is estimated to be suitable for the requirements of the College for approximately 1,500 students. The building is to be completely endowed as to maintenance and is a magnificent gift to Colorado College.

Through Mrs. Taylor's generous gift, the library of the El Paso County Medical Society will be housed in this new building and the new medical library rooms will be dedicated to the memory of Dr. Lewis Hugh McKinnie. The El Paso County Medical Society was very glad to dedicate such a gift to the late Dr. McKinnie, who was always noted for his interest and enthusiasm in medical scholarship. We feel that no memorial to Dr. McKinnie would have been so greatly appreciated by him as a library devoted to scientific study and research.

The library rooms given to the El Paso County Medical Society by Mrs. Taylor will be of such size as to accommodate approximately 8,000 volumes. There will also be an assembly room for the Society with a seating capacity of approximately 100, and a few small rooms for study purposes. The assembly room will be used for the meetings of the El Paso County Medical Society and will be under the direct supervision and charge of the Medical Society. Other medical groups or organizations will be permitted to hold meetings in this room by permission and under the auspices of the El Paso County Medical Society.

Mrs. Taylor's most generous gift provides the El Paso County Medical Society with a permanent home such as all members have dreamed of but had thought impossible to attain for many years to come.

W. A. CAMPBELL, JR., Secretary.

* * *

FREMONT COUNTY

Dr. Frank N. Cochems of Salida was a guest speaker before the Fremont County Medical Society at its final meeting of 1931, held December 28 in Canon City. Dr. Cochems spoke on "Reminiscences of Interesting Cases."

ARCHIE BEE, Secretary.

* * *

LARIMER COUNTY

The Larimer County Medical Society held its regular meeting January 6 at the Lovelander Hotel, Loveland. The meeting was well attended by the members, and the usual banquet preceded a short business session. The Auxiliary extended an invitation to the Society for a joint meeting on February 3 at the Fort Collins Country Club. The invitation was accepted.

Dr. Edward F. Dean of Denver presented as entertainment six reels of moving pictures, "Fishing Across the Canadian Rockies." The pictures were so realistic that more than one of the members felt startled at the end of the last reel to find themselves in the Lovelander Hotel instead of on the fishing grounds.

Dr. N. L. Beebe presented a short paper on "Osteochondritis." The subject was well covered; six cases being reported and demonstrated with x-ray pictures. The paper was discussed by Drs. Brown, Kickland, Platz, and Hartshorn.

C. E. HONSTEIN, Secretary.

OTERO COUNTY

The Otero County Medical Society enjoyed a most pleasant and successful year in 1931. It is pleased to report the election during the year of ten new members, namely: A. S. Hansen of La Junta, V. K. Adams of Manzanola, and B. F. Jackson, F. C. Cassidy, R. P. Jones, R. C. Cook, R. M. Fulwider, A. J. Bondurant, N. E. Stewart and F. A. Passarella, all of the Fort Logan Hospital of the Veterans Bureau. With regret we note that during the year we lost Dr. O. E. Zillman by death, and Dr. George T. O'Bryne, who has moved out of the state.

As of December 15, there were thirty-three members of this Society. During the year the Society entertained the following eminent members of the profession: Dr. Edward Delehanty, President of the Colorado State Medical Society; Dr. J. W. Amesse, President of the Medical Society of the City and County of Denver; Drs. George B. Kent, C. T. Burnett, Constantine F. Kemper, Thomas E. Carmody, and George P. Lingenfelter, all of Denver; Dr. Fred M. Heller of Pueblo, and Severance Burrage, Dr. P. H., of Denver, all of whom contributed splendidly to our scientific programs. Mr. Harvey T. Sethman, Executive Secretary of the Colorado State Medical Society, addressed the Society on "Legislation," and Mr. Charles H. Haines, attorney for the Colorado State Board of Medical Examiners, discussed "Certain Phases of the Medical Practice Act."

Beginning the New Year, a special meeting of the Society was held January 7 at La Junta to hear Dr. Ralph Collins, representative of the Rockefeller Institute for Turkey, Austria, Bulgaria, and Jugo-Slavia, who is now engaged in malarial research work in Jugo-Slavia. He spoke on the "Public Health Program of Jugo-Slavia," dwelling particularly on the ideals of the directorship of the public health program in that country. Entertainment was provided by the Woman's Auxiliary, and Mrs. Albert Stickles, President of the Auxiliary, gave a short address.

The regular January meeting was held in the La Junta Harvey House on January 13. The Rev. Allan H. Erb, superintendent of the Mennonite Hospital and Sanatorium, La Junta, delivered the paper of the evening, on "Medical Economics." An extensive report on the same subject was also given by Dr. B. B. Blotz, chairmen of the Committee on Medical Economics. As this was the annual meeting, officers were elected for 1932. O. D. Groshart, retiring secretary, was elected president; R. P. Jones was chosen vice president; C. E. Morse, Secretary-Treasurer; B. B. Blotz, Delegate, and R. M. Fulwider, alternate.

C. E. MORSE, Secretary.

* * *

PUEBLO COUNTY

At the first January meeting, held January 5 in the Congress Hotel, the Pueblo County Medical Society elected Dr. C. N. Caldwell as its president for the ensuing year. Dr. F. H. Zimmerman, retiring president, delivered his annual address. Other officers of the Society were re-elected: Dr. L. L. Ward, Secretary; Dr. Harold T. Low, delegate; Dr. R. H. Kampmeier, alternate, and Dr. Josephine N. Dunlop, librarian.

Former U. S. Senator Alva B. Adams was guest speaker at the second meeting, held January 19, his subject being "Finance and the Doctor." His address was especially interesting, giving a layman's view of the effects of the present economic difficulties on the medical profession.

L. L. WARD, Secretary.

SAN JUAN

Dr. C. D. Smith of Kline was elected president of the San Juan Medical Society at its annual meeting conducted January 9 at the home of Dr. A. L. Burnett in Durango. Preceding the meeting a banquet was served by the Woman's Auxiliary, and during the evening Mrs. Burnett entertained the ladies. Drs. Burnett and J. C. Darling led the scientific discussion of the evening, on Colonic Surgery. Visitors were Drs. Beaver of Aztec, N. M., Doplowitz of Denver, and Gillespie of Silverton.

Other officers elected for 1932 were Dr. R. L. Downing, secretary; A. L. Burnett, delegate; O. B. Rensch, alternate; O. B. Rensch, H. A. Lingenfelter and B. F. Walters, censors.

Although previously the Society has met only quarterly, it was voted that hereafter meetings be held bi-monthly, the next to be at Mercy Hospital, Durango, on the second Saturday of March. On motion, the secretary was instructed to write letters of protest to our senators and congressmen against the establishment of additional veterans' hospitals.

R. L. DOWNING, Secretary.

* * *

WELD COUNTY

Dr. N. A. Madler abstracted a recent paper of Dr. Paul White's, entitled "Significance of Treatment of Cardiac Symptoms" before the regular January meeting of the Weld County Medical Society, held in the Greeley Hospital January 4. Most of the meeting was devoted to business, and the Constitution Committee presented a new constitution and by-laws for the Society, which was tabled for further discussion.

TRACY D. PEPPERS, Secretary.

COLORADO OTOLARYNGOLOGICAL SOCIETY
November 7, 1931.

The November meeting was held in the Out-Patient Department of The Colorado General Hospital following dinner at The Shirley-Savoy Hotel. President F. J. Peirce presided over a clinical meeting which featured several interesting cases.

Dr. F. L. Beck presented a case of "Hairy Tongue" or Lingua Nigra in a middle aged male who was not aware of the existence of the condition until called to his attention. Duration of the lesion was about four weeks and consisted of a rather large area in the mid-portion of the dorsal surface of the tongue anterior to the circumvallate papillae, which area was covered with a black hairy or fur-like patch; a small portion had been temporarily removed by the application of trichloracetic acid.

Discussion: Dr. Frank R. Spencer stated that he believed the condition was usually due to an elongation of the normal papillae of the tongue but might be caused by drugs or be a congenital anomaly, often requiring no treatment.

Dr. T. E. Carmody described a type of this condition due to aspergillus niger infection and suggested the use of salicylic acid locally. He said that these cases usually do not become malignant.

Dr. F. L. Beck presented a second case in the person of a blacksmith aged 47 with hoarseness of one month's duration. There was a history of tuberculosis involving the right upper lobe of the lung necessitating sanitarium treatment in 1912 but considered a healed case in 1916. On examination there was noted a paralysis of the right vocal band with the cord in the mid-line position. Blood and spinal Wassermann were negative and the x-ray was negative for presence of aneurysm. The patient also presented paresis with atrophy of the extensor muscles on the ulnar side of one arm and hand.

Discussion: Drs. Darrow, Baum, and Beyer shared the opinion that the cord paralysis was probably due to pinching of the right recurrent laryngeal nerve by pleural apical scar tissue; Dr. Beyer felt that prognosis for life was good but that the position of the cord and the character of voice would probably remain unchanged.

Dr. H. L. Baum presented as a patient a middle aged mining engineer who came to him with complaint of auricular pain, severe dysphagia, posterior cervical adenitis, and extreme emaciation incident to the presence of a soft friable tumor of the nasopharynx. Biopsy from the tumor revealed a grade three squamous cell carcinoma; there was also a plus four Wassermann. Treatment by deep x-ray theropy had resulted in marked improvement—the patient had been able to eat and gain weight and the mass was much decreased in size. Supplementary treatment by iodide and salvarsan medication was also being carried out.

Discussion: Dr. Carmody mentioned the possibility of using radium seed implantation in further treatment.

Dr. T. E. Beyer presented a female aged 52 on whom he had operated for relief of pyocele of the left frontal sinus. Following an attack of acute frontal sinusitis on the same side ten years previously with apparent recovery patient developed the present condition of swelling with moderate pain left frontal region and a bulging of the inner upper corner of the left orbit. There was no evidence of acute inflammation or pus discharge in the nose. X-ray plates at first reported negative revealed on closer study bony defect of the anterior frontal wall and orbital ridge. Following aspiration of pus from the bulging area a Killian operation was performed with exposure of large bony defect of the internal as well as the external plate; wound was drained externally, no intranasal procedure being carried out. After a somewhat stormy convalescense interrupted by two complicating attacks of erysipelas the patient made a good recovery.

Discussion: Dr. Carmody considered the case as a probable infected mucocele and felt that drainage through the nose would have been preferable to avoid the possibility of brain abscess.

Dr. T. E. Carmody presented two cases of infra-auricular fistula of diverse origin. The first in a female aged 18 who presented when first seen a small fistulous opening at the inferior end of a healed mastoidectomy wound. Through this fistula exuded intermittently a few drops of serous discharge which increased perceptibly in amount during mastication. There was no middle ear discharge and hearing had been well restored following mastoid operation. Examination of the secretion following ingestion of potassium iodide indicated its salivary origin, probably from an aberrant lobule of parotid gland. Plastic operation with removal of a short fistulous tract had resulted in an apparent cure. X-ray previous to plastic operation suggested retention in the mastoid tip, but at operation the tip cells were found filled with new bone and apparently free from infection.

Discussion: Dr. O. B. McGillicuddy commented upon the presence of better hearing on the operated side with the history of bilateral ear involvement and felt that a mastoidectomy might have been indicated on the opposite side.

Dr. H. L. Hickey reported the mastoid surgery which preceeded the fistula and stated that operation was performed on the seventh day of the

middle ear disease, earlier than usual because of very disturbing general systemic symptoms; also that the salivary fistula did not appear until after an attack of measles some six weeks after cessation of middle ear discharge and healing of the wound.

Dr. Carmody's second case was a five year old girl presenting a fistula with scant mucoid discharge extending from the region of the mastoid tip downward and inward along the anterior border of the eustachian tube. The fistula was considered to be bronchial in origin in spite of the fact that mastoidectomy had been performed for relief of a supposed Bezold abscess of residual type; at operation the mastoid antrum did not appear infected but pus was encountered in the tip cells. Subsequent treatment of the fistula consisted of packing and application of silver nitrate and the wound was gradually healing.

Discussion: Dr. H. S. Rusk raised the question of possible communication of the internal end of the fistula with the pharyngo-maxillary fossa.

Dr. K. G. Cooper suggested the use of electrocoagulation with a special insulated needle in case the fistula did not remain permanently closed.

Dr. K. G. Cooper (by invitation) presented a young male adult with extensive perichondritis of the right auricle which had followed a gasoline explosion with the production of second degree burns. Infection of a fissure of the tragus had resulted in abscess formation and extension beneath the devitalized soft tissues together with much destruction of cartilage. At present there remained considerable reactionary swelling with a discharging fistula through which a probe could be passed upward, downward, and backward to the limiting integument. The patient was presented for advice as to further treatment.

Discussion: Dr. Darrow described treatment by open operation as recommended by Dr. Kerrison of New York.

Dr. Beck suggested as thorough removal as possible of the remaining necrotic cartilage.

Dr. H. L. Whitaker stated that he believed the application of sound general surgical principles, viz., open operation with packing to stimulate healing and a clean surface from within, offered the best prognosis.

Dr. C. H. Darrow demonstrated a small size bronchoscope to be used in place of the 7mm. Hasslinger type which in his experience had occasionally caused edema by trauma in a small larynx. He also presented a new type rheostat and small size Imperatori grasping forceps for use with the modified bronchoscope.

Dr. R. R. Spencer presented a pathological specimen consisting of an enormous choanal polyp which he had removed from the nasopharynx of a female patient. The pedicle of origin was at the natural ostium of the left antrum.

* * *

December 5, 1931.

The December meeting was held in the Out-Patient Department of The Colorado General Hospital following dinner at the Shirley-Savoy Hotel. Dr. Peirce presided over a meeting replete with interesting clinical material.

Dr. F. R. Spencer presented a young male aged 16, first seen June, 1931, because of marked swelling and redness of the left eyelid associated with pain. There was a previous history of influenza, and the patient had been swimming two days previously. Examination revealed sufficient swelling to close the left eye, chemosis of the ocular conjunctiva, pus in the left middle meatus, other findings were grossly negative. X-ray examination disclosed necrosis of the left upper orbital rim. Treatment consisted of external operation upon the left anterior ethmoid and orbit with evacuation of pus. A diagnosis of osteomyelitis of the orbital rim was verified, and recovery took place after a stormy course. The case was complicated by sequestrum formation which healed with conservative treatment, and symblepharon of the left lower lid which subsided after surgical separation.

Discussion: Dr. Carmody discussed osteomyelitis of the skull and mentioned the radical methods advised by Dr. Furstenberg of Detroit. Dr. Darrow compared chronic and acute forms of this condition as to etiology.

Dr. Darrow presented a female aged 57 from whom in August, 1930, he had removed a tumor of the right epiglottis and right pyriform sinus. Pathologic examination gave the report of medullary epithelioma. Deep x-ray therapy was advised but not carried out at that time. She now returns with a small nodule of the epiglottis, and a cervical gland recently removed is positive for carcinoma. X-ray at this time is negative for metastatic tumors in the chest but shows healed tuberculosis. Direct esophageal examination is negative.

Discussion: The consensus of opinion seemed to be that deep x-ray treatment and possibly radium should be used. Dr. Chapman mentioned the use of tuberculin in the treatment of malignancy.

Dr. C. E. Cooper presented two cases, the first a female aged 52 with a widely gaping unhealed mastoid wound associated with extensive skin lesions about the ear, face, neck, and scalp. There was also a drainage opening into a preaural abscess. There was a previous history of ulceration in the nose during February, 1918, dematitis about the external nose with radium treatment in February, 1919, and influenza in February, 1931. In July, 1931, the mastoidectomy had been performed under local anaesthesia and healing had not taken place. The patient was presented for diagnosis.

A letter describing the patient's condition while at the Mayo Clinic offered no diagnosis. During the past three weeks at Colorado General Hospital there had been no fever; the red blood count and hemoglobin showed a slight anemia; white blood count 26,000 to 30,000; differential count showed preponderance of lymphocytes. Wassermann' negative after provocative treatment; blood sugar, increased to 128 mgms., but no glycosuria. The chest was negative; fundi, negative for evidence of leukemia. Dermatologic diagnosis was given as dermatitis eczematosa. A recent operation had been performed for the removal of sequestra from the mastoid and zygomatic area with exposure of the middle cranial fossa and lateral sinus.

Discussion: Dr. Spencer raised a question of osteomyelitis of the temporal bone as a causative factor. Dr. Ringle reported tissue examination from the nose on a previous occasion to be negative. Dr. E. R. Mugrage was quoted as believing the condition to be chronic lymphatic leukemia. Dr. Baum regarded the case as a medical problem with the otologic infection as an incidental manifestation of some undetermined factor. (A report subsequent to the meeting states that the patient left the hospital shortly and made a speedy exit by the suicide route.)

Dr. Cooper's second case was a female, aged

60, in whom there had developed a supraclavicular cervical abscess following an acute throat with adenitis. There was a concomitant acute otitis media with mastoid tenderness. The abscess had been drained surgically, and the ear was still under surveilance.

Dr. H. L. Baum reported the clinical details of a fracture due to injury by a blow on the orbital rim. X-ray plates were exhibited demonstrating the area of fracture with downward displacement of the lower portion of the orbit and zygoma, elongation of the orbit, and shortening of the antrum.

A supplementary report was given on Dr. Baum's case of carcinoma of the naso-pharynx presented at the November meeting.

Dr. K. G. Cooper (by invitation) presented the post-operative result in the case of perichondritis of the auricle previously shown. He also presented a female, aged 60, with ulceration of the left tonsil in whom biopsy in January, 1931, and in July, 1931, had reported chronic inflammatory tissue. A recent biopsy had shown undoubted squamous cell carcinoma.

A discussion of operative and radium treatment methods followed.

HAROLD L. HICKEY, M. D.
Reporter.

COLORADO OPHTHALMOLOGICAL SOCIETY

October 17, 1931

DR. C. A. RINGLE, PRESIDING

Recurrent and Alternating Episcleritis

Dr. E. M. Marbourg presented a patient who had had his first attack of episcleritis when husking corn about a year ago. Since then both eyes had been alternately and at times simultaneously involved. He had not had much pain but had done better when the pupils were kept well dilated. He had tonsils which he had refused to have removed. Foreign protein injections with good reaction had been used with little effect on the eyes.

Discussion: Dr. D. H. O'Rourke said that he had been treating such a case for a year without satisfactory result. He said he had used Verhoeff's method with tuberculin, an antrotomy had been done, x-ray pictures had been made of every suspicious area, and sodium salicylate and foreign protein had been tried. Dermatitis of the lids had developed from administration of either atropin, homatropin, or scopolamin.

Dr. W. C. Finnoff said he had tried Benedicts' suggestion that the cervix in women might be the focus of infection and had used a vaccine made from cervical flora, but had had no success. Dr. Finnoff believed that this case was not one of tuberculosis because it was too superficial.

Dr. W. C. Bane said he had used high frequency current with good results.

Dr. W. H. Crisp believed this was a case of episcleritis rather than scleritis, for the latter had a more purple color. Dr. Crisp mentioned that in this country we are prone to consider various focal infections as the usual etiological factor in many obscure ocular conditions, whereas in Europe the physicians assume that practically all cases are tuberculous in origin and that improvement after removal of auxiliary foci is merely an expression of getting the body into better condition to cope with the tuberculosis. Dr. Crisp urged cycloplegia for these cases and suggested the thermophore and refraction in the treatment. Dr. Crisp also wondered whether the ill-kept dental prothesis that the man was wearing might in some way enter into the etiology.

Dr. G. H. Stine mentioned that he had had a case and heard of others where an infected dental stump had been found buried in the gum under the prothesis.

Sympathetic Irritation in Uninjured Eye Following an Arrow Wound to Other Eye

Dr. E. M. Marbourg presented a twelve year old boy who had been struck in the left eye by an arrow, rupturing the cornea and causing a prolapse of the iris into the wound. The eye was badly contused. Prolapsed iris had been excised by another oculist at the time of the injury. Inflammatory conditions subsided satisfactorily as far as the primary trauma was concerned, but the eye steadily progressed to a state of phthisis bulbi. In about two months after the injury the patient complained of photophobia in his uninjured eye. Enucleation of the injured eye was done and in twenty-four hours after the enucleation the photophobia disappeared.

Discussion: Dr. Edward Jackson said that it was especially important to remove an exciting eye in children as soon as photophobia appears in the other eye, for all cases of recovery of sympathetic ophthalmia have been in adults, and children are much more liable to have sympathetic ophthalmia. Dr. Jackson said he had seen one case of a man forty years old who had had three attacks (two of them after the enucleation) and yet had recovered with normal vision.

Dr. W. C. Bane said that the case Dr. Jackson mentioned had been in his office only three days previously and still had normal vision. The injury which had occurred thirty-two years previously had consisted of a piece of iron entering the eyeball, the presence of which had been diagnosed by the sideroscope. He had been given thirty grains of sodium salicylate every four hours for four days, mercury by inunction, and atropin locally.

Dr. G. H. Hopkins said he had seen salvarsan used with good results. Dr. Hopkins also recited a case where a piece of iron had gone through the lids of an eye and had buried itself in the ethmoid region. The eye was now quiet and practically normal in size. Dr. Hopkins asked whether there was just as much danger as though the foreign body had remained in the eye, whether an attempt should be made to get the foreign body, and whether siderosis would be apt to occur. Dr. Edward Jackson answered that Dr. John McReynolds had written a paper in 1919 in which he said that the danger from sympathetic ophthalmia is not from the foreign body, but from the trauma. Dr. Jackson recommended the removal of the foreign body because of the undesirable effects that might develop in the sinuses and bone, and believed that siderosis would not occur in such cases unless the iron was within the eyeball. Dr. Jackson further said that good drainage should be provided in any operation when the foreign body had gone through the eye, for one case has been reported of meningitis occurring six weeks after an enucleation. Dr. Wm. C. Bane said that his son, Dr. William M. Bane, had removed a piece of iron from the orbit in such a case by dissecting back alongside the eyeball and applying a magnet.

Dr. W. C. Finnoff reported a case of sympathetic ophthalmia following a cataract extraction. The patient, a Christian Scientist, would not al-

low enucleation until two weeks after the onset. The patient refused all medication except atropin. There was one later attack of less severity, but the eye has now been entirely quiet for eighteen months.

Dr. Marbourg (closing) mentioned another case where a man had struck a stump of an eye sixty years after the original injury and had gotten an attack in the other eye of what appeared to be sympathetic ophthalmia. No histological examination had been made.

Xerosis of the Conjunctiva

Dr. E. R. Neeper presented L. H., a nine year old undernourished girl, who had been first seen in Feb. 1931, for a routine institutional examination of her eyes. The eyes were normal except for a xerotic area about three by five mm. extending out from the temporal limbus on the right eye. About six weeks later a similar area appeared on the left eye. Mild astringents had been the only medication.

Discussion: Dr. W. H. Crisp said he had seen several cases with similar patches in which there had been no clinical manifestations. Dr. Crisp suggested the use of the thermophore.

Dr. W. C. Finnoff reminded the society of the cases he had shown several years ago in which there had been a history of malnutrition.

Dr. J. J. Pattee said he had seen a few such cases at Moorfields and in his own practice. The appearance had not changed over a period of years.

Dr. J. M. Shields said that Dr. Neeper's case was the most marked that he had ever seen.

Keratitis and Glaucoma Following Cataract Extraction

Dr. G. H. Stine presented Mr. J. O. McC, a sixty-six year old farmer, whose left eye he had operated upon for cataract three months previously. There had been no unusual findings in the history or examination, including the tension by tonometer, before the operation.

On July 7, 1931, a combined extraction with a large conjunctival pocket flap was done. Forty-eight hours after the operation the dressings were removed and found to be saturated with tears. There was nothing unusual in the appearance of the eye. The next day there was considerable edema of the conjunctival flap, with some striate keratitis. On the fourth day a faint milk-like opacity covered the entire posterior surface of the cornea. Otherwise the eye was doing well. Atropin and dionin were used, and the patient was given a course of milk injections. Ten days later there was very little change in the appearance of the corneal opacity. There was some epithelial bedewing. The tension was 17 mm. (Gradle-Schiotz). Since that time the eye had quieted down completely. The posterior opacity was still present, but was clearing somewhat. The pupil, in the meantime, had dilated widely, especially below. Atropin was discontinued. At the end of a month the corneal striation had cleared considerably, but the epithelial bedewing was still present. The tension was normal. The pupil was still widely dilated and clear. In the following month there was little change, except that the tension gradually rose from 17 to 30. The patient was given pilocarpin 1 per cent and dionin 2 per cent to use, but this had little effect upon the tension. Within the next month there developed a grayish opacity in the epithelium of the cornea extending inward for about 3 mm. from both the temporal and nasal limbus. The fine striation in Descemet's membrane and the epithelial bedewing were still present. There was also faint infiltration in the posterior third of the substantia propria. The tension fluctuated between 20 and 30, pilocarpin and eserin having little effect upon it. At the end of the third month a paracentesis of the cornea was done to differentiate between degeneration of the cornea and a corneal opacity due to glaucoma. With the release of the aqueous there was considerable clearing of the epithelium, but no change in the posterior opacity. The aqueous was allowed to drain for two days after which the tension rapidly rose, fluctuating between 38 and 50, with increased epithelial opacity. At no time was the eye painful.

Dr. Stine planned to do a cyclodialysis for relief of tension and to determine the effect on the corneal opacity.

Discussion: Dr. W. C. Bane advised a posterior sclerotomy as a temporary measure to be followed by a corneoscleral trephine. He mentioned that he had even used a posterior sclerotomy to good advantage in a case of increased tension from a traumatic cataract.

Dr. V. H. Brobeck said that he was not in favor of the large pocket flap because in his opinion it decreased nutrition of the cornea and decreased the visibility during the section.

Dr. W. H. Crisp recited a case of intracapsular extraction in which the capsule had ruptured as the lens was being withdrawn with the forceps. There was delayed healing of the wound, but this was cared for satisfactorily by a sliding conjunctival flap. Some weeks later he made a single cut in a delicate pupillary membrane and this was followed two hours later by an acute attack of glaucoma. Eserin has controlled the tension quite well, but Dr. Crisp believed he would later have to do an iridencleisis or some other filtration operation.

Dr. J. M. Lamme believed the opacity in Dr. Stine's case was due to lack of nutrition to the cornea.

Optic Neuritis and Postneuritic Optic Atrophy Due to Thallium Acetate (Koremlu Depilatory Cream)

Dr. G. H. Stine reported the case of Miss Z. D., aged 47 years, whom he first saw on Aug. 6, 1931. The complaint was blurring of near vision and asthenopia. No defect in distant vision had been noted. The patient was wearing +1.50 spheres, prescribed for reading six months ago by an optician. She had been suffering from neuritis in both legs since last April. Her physician had been considerably perplexed as to the diagnosis until he had read of cases of thallium acetate poisoning occasioned by the use of Koremlu depilatory cream. The patient's general condition had improved considerably following the use of calcium, the iodides, sodium thiosulphate, and other eliminative measures. External examination, the pupils, and ocular movements were normal.

Examination of the fundi showed the media to be clear. In the right eye there was definite pallor of the temporal half of the disc, the margins were very slightly irregular, the lamina cribrosa was well defined and broad. The arteries were somewhat contracted; both inferior and superior temporal arteries were somewhat irregular in caliber. There were numerous punctate glistening white dots in the macula. In the left eye the disc appeared larger and had a dirty succulent appearance as if very slightly swollen. The physiologic excavation was obscured. The margins of the disc were slightly indistinct. The capillarity was normal. There was slight contraction of the retinal arteries. The vision in the right eye was 0.3 and in the left 0.6. With

the old reading glasses the near point was right 3.75 D., J. 4 and left 3.75 D., J. 1. The muscle balance was essentially normal. The shadow test indicated —0.25 sphere in each eye.

Fields taken on the modified Ferree-Rand perimeter with 1/2° form and 1° color showed a practically normal field in the left eye. In the right eye there was an absolute sector defect running from the disc to the periphery in the upper nasal quadrant. There was a superior altitudinal hemianopsia for red and green. The stereocampimeter showed a large absolute scotoma about 10° in width extending from the blind spot horizontally nasalward in the right eye. The lower border of the scotoma encroached fixation. In the left eye there was an enlargement of the blind spot with a wing-shaped absolute scotoma about 4° wide extending from the upper nasal margin nasalward to a point just above fixation. There was a similar, but much smaller one extending from the temporal margin outward. This scotoma was larger for 1/2° red.

The patient reported back in one month stating that her general condition and the eyes had improved. The vision was right 0.5+, and left 0.9. There was no change in the near point, but the patient could read J. 1 and 2 with the right eye. The right disc showed somewhat increased pallor. The left disc did not appear quite so swollen. There was slight pallor of the extreme temporal portion of the disc; otherwise there was no change. Fields taken on the stereocampimeter showed no change in the scotoma in the right eye. The central red field for 1/2° had enlarged considerably. In the left eye the scotoma extending nasalward from the blind spot had broadened and intensified slightly. The central red field for 1/2° had broadened out considerably as in the right eye.

Dr. Stine reported the case because of its rarity. There had been numerous cases of multiple neuritis due to thallium acetate poisoning reported in the recent literature, but he had not so far seen a report of optic neuritis due to this cause.

Discussion: Dr. Edward Jackson said he had never seen a case due to this cause.

Bilateral Paresis of the Superior Oblique Muscle Due to Head Injury

Dr. G. H. Stine reported the case of Mr. W. B. B. whom he had refracted on Aug. 21, 1931; there had been no unusual findings in the refraction or the muscle balance. A month later the man was kicked in the left mastoid and temporal region rendering him unconscious for eighteen hours. Upon recovery he noticed double vision especially in the lower fields single vision being normal. There were only slight general neurological signs. The right eye was slightly down under cover and the left slightly up under cover. No limitation of motion could be seen. Diplopia fields showed single vision in all directions of the upward gaze and in the primary position. On looking down and to the right there was homonymous vertical diplopia, with the image of the left eye below and the separation increasing progressively downward. On looking straight downward the diplopia was homonymous, but the images were level. On looking down and to the left there was also homonymous diplopia with the image of the right eye below and the vertical separation increasing progressively downward. On looking to the right there was vertical diplopia with the image of the left eye below, and on looking to the left the image of the right eye was below. Tests with Maddox double prism showed the eyes to be extorted. Fields of fixation, however, showed no definite diagnostic involvement of any ocular muscle.

There was faint blurring of the upper margins of both discs; otherwise the fundi were normal. Detailed field examinations revealed nothing more than slight enlargement of the blind spots. There had been no change in the paresis in two weeks. The patient had been put on mercury and iodides, and one eye was being occluded to avoid the diplopia.

Dr. Stine said that the only other case he could find in the literature was the one reported by Duane in the Archives of Ophthalmology in 1897.

Discussion: Dr. Edward Jackson said he had seen unilateral cases from a blow on the back of the head, but had never seen a bilateral case. Dr. Jackson recommended the use of iodides.

Dr. E. M. Marbourg said he had heard of superior oblique involvement after mastoid operations.

Pulsating Exophthalmos

Dr. V. H. Brobeck reported a case in W. Y. a fifty-one year old Negro (to be published fully later).

RALPH W. DANIELSON, Secretary.

Obituary

Dr. Frederick Edward Becker

Dr. Frederick Edward Becker, assistant professor of pathology at the University of Colorado School of Medicine, died at St. Anthony's Hospital, Denver, January 8, 1932, following a recurrence of agranulocytosis, the first attack of which had occurred in August 1931.

He was born July 8, 1888, at Johnson's Creek, Wisconsin. He graduated from Wartburg College, Clinton, Iowa, in 1909, and subsequently spent two years at the Wartburg Theological Seminary at Dubuque, Iowa. In 1911 he came to Colorado, making his home first at Montrose, where he taught in the public schools, and later at Delta. For a time he attended the Gunnison Normal School and also the University of California. For several years he was principal of the High School at Fort Morgan, Colorado.

Soon after the entrance of the United States into the World War he became secretary of the Lutheran Brotherhood at Camp Dodge, Iowa. In the spring of 1918 he joined the army and spent seventeen months overseas with the 135th Infantry, first in France and later with the Army of Occupation in Germany.

In 1919 he began a premedical course at the University of Colorado, and later received the degrees of A. B. and A. M. During this time he also served as assistant in the Department of Biology.

In 1921 he married Miss Frances Donaldson of Boulder, and in the same year entered the University of Colorado School of Medicine, from which he received his degree of M. D. in 1925.

During his medical course he held positions as student assistant in physiology and pathology. Following an interneship at St. Luke's Hospital, Denver, he became associated with the Department of Pathology at the Medical School and at the time of his death was assistant professor in that department. He also devoted part of his time to private practice.

Dr. Becker was the author of a number of important papers on pathological subjects, and was especially well known for his investigations of Rocky Mountain spotted fever in Colorado. He was gifted with many talents and not only stood in the first rank as a scientist, teacher, and physician, but also was accomplished as a painter and violinist.

He was a member of the Medical Society of the City and County of Denver, the Colorado State Medical Society, a Fellow of the American Medical Association, the Twentieth Century Medical Society, and of the Phi Chi Fraternity. He was honored by election to three national honorary societies, Phi Beta Kappa, Sigma Xi, and Alpha Omega Alpha. He was a charter member of the Washington Park Lutheran Church, and president of its board of directors.

Dr. Becker is survived by his widow, Mrs. Frances Becker, and one son, Donald Leo Becker; his parents, the Reverend and Mrs. John Becker; six brothers, four of whom, John H., Godfrey C., Conrad H., and Siegffried M., are Lutheran ministers, and also Theodore J. of the University of Colorado School of Medicine, and Carl of Wartburg Normal College, Waverly, Iowa; and three sisters, Mrs. A. C. Cary, Mrs. August Baetke, and Miss Charlotte Becker.

Dr. Herbert C. Turrell

Dr. Herbert C. Turrell, president of the San Juan Medical Society for the past year, died January 11 in Pasadena, Calif., from myocarditis, according to telegraphic word received by his colleagues in Durango, where he had practiced for many years.

Dr. Turrell was born January 26, 1877, in Longmont, Colo., and received his early education in northern Colorado. He was graduated from the University of Colorado School of Medicine in 1902, and was licensed by the State Board of Medical Examiners the same summer. He began practice in Durango a year later.

He was elected a member of the San Juan Medical Society in 1921, and had been active in its proceedings since that time. He was practicing in Durango until a few months ago, when he went to Southern California to seek the advantage of a lower altitude. In addition to being president of his medical society, Dr. Turrell had served as president of the staff of Mercy Hospital, Durango.

Dr. Greyson C. Gardner

Dr. Greyson Curtis Gardner of La Junta died January 20 at the Santa Fe Hospital in La Junta from tuberculosis.

Dr. Gardner was born in Liberty, Indiana, August 17, 1895. After obtaining an academic degree at Springfield, Mass., he became a football coach until the United States entered the World War. He served nineteen months in France with a machine gun company and there contracted the disease which eventually resulted in his death. After the war he coached football teams in Kansas for two years and then entered the University of Indiana School of Medicine, obtaining his medical degree in 1925. After an internship in St. Vincent's Hospital in Indianapolis he moved to La Junta. He was associated with the Santa Fe Hospital and was a member of the Otero County Medical Society for the last four years.

He is survived by his wife and a three year old son.

Dr. Arthur R. Williamson

Dr. Arthur Ramsey Williamson of Pueblo died January 8, 1932, following a brief illness.

Dr. Williamson was fifty years old. He was born in Lincoln, Illinois. After a preliminary education near his home he was graduated in 1912 from Hahnemann Medical College in Chicago. Dr. Williamson practiced for several years in Ohio before moving to Colorado to make Pueblo his home. He was elected to the Pueblo County Medical Society in 1922 and had been active in its proceedings since that time.

Dr. Frederick A. Jackson

Dr. Frederick A. Jackson, president of the Chaffee County Medical Society, died January 25 in St. Joseph's Hospital, Denver, after an illness of nine weeks.

Dr. Jackson was born January 9, 1865, in New York City and came to Denver with his family when he was eighteen years old. He was graduated from the University of Denver Medical School in 1888 and obtained his license the following year. Shortly afterward he moved to Salida, which has been his home since that time. In 1913 he spent a year in the East in post graduate work preparatory to specializing in eye, ear, nose and throat diseases. For the last thirty-five years he had been connected with the Denver and Rio Grande Western Railroad Hospital at Salida. He had been a member of the Chaffee County Medical Society since 1916.

He is survived by two sisters and a brother, Mrs. G. D. Hawkins and Mrs. Orlando Preston of Denver and Arthur L. Jackson of Salt Lake City. Dr. Jackson's wife died two years ago.

Dr. F. J. Blackmer

Dr. Frank Jay Blackmer, for many years a leader in the Northwestern Colorado Medical Society, died December 2, 1931, of cholecystitis.

Dr. Blackmer was fifty years old at the time of his death. He was born in Albert Lee, Minnesota, and was graduated in 1904 from the University of Illinois College of Medicine, Chicago, with the degree of doctor of medicine. He obtained his Colorado license in 1907.

Dr. Blackmer was for several years president of the Northwestern Colorado Medical Society and had at one time or another held every office in the gift of the organization. He was a Fellow of the American Medical Association and throughout his professional life had been active in medical organization.

Dr. James F. Burgin

Dr. James Flannery Burgin died November 27, 1931 at his home in Delta, Colorado. Dr. Burgin was fifty-two years old. He was born in Bethany, Missouri, and received his medical degree in 1908 from the Cincinnati Eclectic Medical College. In 1922 he moved to Colorado and associated himself with Dr. Chas. H. Burgin of Delta, his brother, and the late Dr. I. F. Burgin of Cedaredge. Dr. I. F. Burgin died several years ago. Dr. James Burgin was elected to the Delta Medical Society in 1922.

WOMAN'S AUXILIARY

A LETTER FROM OUR NATIONAL AUXILIARY PRESIDENT

Dear Auxiliary Members:

As we cross the threshold of a new year shall we, like other businesses, pause and take stock of ourselves to see where we have arrived in relation to the goal which we set for ourselves at our annual meetings?

Is there yet a county or a state Auxiliary that is not working under the direction of an advisory council or counselor of doctors appointed by its medical society? A questionnaire sent last summer to our thirty-seven constituent state units to ascertain if they had advisory councils appointed by their medical associations brought replies from thirty and revealed that twenty-eight of those did have an advisory council. One of our goals for this year is an advisory council or counselor for each of our county and state Auxiliaries. Where does your own Auxiliary stand with relation to this goal? It is hoped that each state president reporting at New Orleans will be able to say that not only her state Auxiliary but that each of its constituent county units has an advisory council or counselor.

Have you as a county or state group set a goal for membership? Has your Auxiliary some sort of membership file by which you have kept a complete record of members from the beginning of your organization and are you retaining as members all those who have ever belonged? If not, could you not begin this first month in the new year to re-enlist them? Our national files contain many cards of members which we have had to class as "delinquents" because we have failed to receive dues for them or reports on them. Some of these have moved to other states, others have passed into the Great Beyond, still others have just failed to pay dues. Could not each organized county that has not already done so, yet this year make an effort to re-enlist every eligible woman who has ever been a member, make a card file of its membership and report to the state office the names of those who have moved to another locality and to a chairman, which each state president is being asked to appoint for that purpose, the names of those who have passed on.

Last year Mrs. Hunsberger did much work to get our national membership file into order. The adoption of the present plan of treasurers' receipt blanks, now universally used by the Auxiliaries, I think, is helping to perfect our files, but until every county and state Auxiliary adopts the above suggested plan and reports on all the names ever sent in by them to the national office as members our files will be cluttered by cards which we must continue to class as "delinquents."

It seems to me that each county administration should feel that it had failed somehow in its duty if it did not make a sincere, persistent, and tactful effort to hold in membership at least all those committed into its care by the former administration and unless its membership is already one hundred per cent of the wives of doctors belonging to the county medical society, it should attempt to make a definite, even though slight, gain.

The president of an Auxiliary in one of the sparsely settled western states, where great distances and mountainous country make frequent meetings impossible, wrote that she had received much inspirational material from the various national chairmen this year, but that as yet, her Auxiliary is only a social organization whose primary purpose is to stimulate its members to attend annual meetings so that the attendance of the doctors themselves may be increased. This is a laudable goal. This Auxiliary is already a "reserve force" for its medical society. When the doctors in that state medical society find out how those in the neighboring state societies are using their Auxiliaries to promote understanding between the medical profession and the public, perhaps they, too, may desire to use their "reserve force" for further service, and the Auxiliary in the meantime may be reviewing the work of other Auxiliaries as reported in the state Journals, the Bulletin, the Minutes and Reports of the Convention, and preparing itself for service when called upon.

Some of the newly-organized Auxiliaries are attempting nothing more than to bring about unity and solidarity within the profession by means of social contacts between the families of doctors. My observations on my visits to Auxiliaries during this year leads me to believe that this function of the Auxiliary should not be underestimated. The medical societies are apparently, more and more, recognizing the forces both within and without the profession that are working counter to the best interests of the profession and the public and are feeling the need of a unifying force such as an Auxiliary may be when given sufficient encouragement and co-operation, and guidance by its medical society.

The growing interest in the educational and public relations programs of the Auxiliaries this year has been most gratifying. That many state medical societies have prepared educational programs for their Auxiliaries and have endorsed the National Auxiliary study envelopes for use in developing these programs is satisfying. In an increasing number of county Auxiliaries a few women are being discovered who are vitally interested in the educational programs and who are a real force in interpreting the ideals and work of the medical profession to other women's groups in which they work by influencing these groups in the choice of approved literature and speakers to be used on their health programs. One of our goals this year is to discover such women, to urge them to represent our groups in other women's organizations by accepting positions of leadership therein, and to back them up by our loyal support. Are there such women in your group working, or capable of working under supervision of your advisory council in other women's organizations?

The state Auxiliaries have made much progress this year in securing chairmen corresponding to the national chairmen. Our organizations cannot function properly until county Auxiliaries also have such chairmen who will receive program suggestions and materials from the state chairmen and who will report to the state chairmen on the progress of the county work. The function of the National Auxiliary is to stimulate interest in types of approved work possible to be done and to serve as a clearing house for information on the kinds of work done successfully by the various Auxiliaries. It is obvious that little interest can be stimulated if there are not county and state chairmen corresponding to the national. How near to this goal is your Auxiliary?

During the year between annual meetings our Press and Publicity Committee reporting to the state Journals and through the Bulletin of the A. M. A. is our clearing house for information and news. Has your state contributed its share of news to the state and national chairmen? Our national Press and Publicity Chairman has been very diligent in collecting news and prompt in reporting, but many of our state chairmen have never reported to her. My dear state presidents, are you positive that your chairman is reporting? Isn't one of your goals to let the rest of the Auxiliary world know what fine work your state is doing so that others may profit by your example? If your Press and Publicity chairman is not functioning, will not you consider it your privilege as well as duty to send a report of your work to Mrs. Overholser immediately? Is she receiving the Journal of your state medical society? Is Mrs. Walter J. Freeman, the editor of the Bulletin, receiving it?

Where do you stand with relation to your Hygeia goal? We have repeatedly said that Auxiliaries are organized to carry on those projects advised or approved by the medical associations. The House of Delegates of the American Medical Association in the Convention at Philadelphia last spring asked that we "recognize as one of our chief activties the promotion and distribution of this publication through parent-teacher associations, boards of education and similar bodies interested in education."

Do all of us realize that the American Medical Association is publishing Hygeia for the layman, to meet his insistent demand for information concerning the functions and care of the human body, and that if this demand is not satisfied by **authentic** information that he is more likely than not "to go floundering away from scientific medicine?" If any of you are doubtful as to the helpfulness of Hygeia for teachers, mothers, nurses or doctors write to Mrs. Rogers N. Herbert, 1509 Stratton Avenue, Nashville, Tennessee, for a folder of "Hygeia talks," which will probably convince you. If you are not a reader of Hygeia write, "The Circulation Manager" 535 North Dearborn Street, Chicago, Illinois for a sample copy, read it, and let it convince you of its value.

No woman who is promoting the distribution of Hygeia through schools or homes or other educational groups should consider herself a magazine solicitor, but instead she should feel that she is an important factor in a health education project, devised and promoted by the American Medical Association, for the good of both the profession and the public.

A most interesting and inspiring development in Auxiliary work that was revealed by some of the states reporting at the mid-year board meeting in Chicago is that several of the state Auxiliaries now have a portion of the time of an assistant-executive secretary appointed by their respective medical societies. Minnesota, Illinois, and Wisconsin reported such co-operation. Is that kind of relationship between a State Medical Association and its Auxiliary not a goal for which to hope?

And now as I write comes through the mail the fulfillment of one of the Kentucky Auxiliary goals set at their annual meeting at Lexington in September which I attended—the first issue of their new "Quarterly," the first bulletin, I believe, to be undertaken by a state Auxiliary! Congratulations, Kentucky!

The National Auxiliary does not presume to dictate, it desires only to collect and exchange plans to advise and to stimulate state presidents and their chairmen. The annual conventions and mid-year board meetings are our greatest factors in stimulating interest. It is in these meetings that the values of the Auxiliary become apparent; it is here where by reports, by conferences and discussions, we measure our progress, evaluate our methods and discover our mistakes; it is here that we discover our strength and our weakness, it is here that we set our goals.

We believe that the national mid-year board meetings and conventions are so important in the life of the Auxiliary that every board member should consider it an obligation when reasonably feasible to attend. We are suggesting that each state Auxiliary set this new goal for itself at its next annual meeting if possible, that it provide sufficient means to insure its state president's attendance at the mid-year board meeting in Chicago, and at the annual Convention in the spring. We believe that every state chairman should make an honest effort to attend the national convention.

Mrs. Joseph Hume of New Orleans is the chairman of the next convention which is to be held next May 9-13 in that interesting old city of the South, New Orleans. Our own President-Elect, Mrs. Walter Jackson Freeman, who so skillfully guided the Convention in Philadelphia is also a member of the New Orlean's Convention Committee.

(MRS. ARTHUR B.) ANNA F. McGLOTHAN.

WYOMING SECTION

President, R. H. Sanders, Rock Springs — Vice President, Herbert L. Harvey, Casper
President-elect, Frederick L. Beck, Cheyenne
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to the A. M. A.: George P. Johnston, Cheyenne — Alternate, Earl Whedon, Sheridan
Councillors: C. Y. Beard, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shaffer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan — Emory L. Jewell, Shoshoni — C. W. Jeffrey, Rawlins

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

THE PUBLIC POLICY AND LEGISLATIVE COMMITTEE

THE action taken by the Wyoming State Medical Society at the Rawlins meeting in creating an outstanding committee on Public Policy and Legislation is one of the advances made in the interest of humanity. There is no higher honor the Society can confer than membership on this committee; it is greater than that of being President or any other officer in the Society.

Membership can only be compared to that of the Trusteeship in our State University. All the benefits of such a committee are not evident on first thought. Years of labor by the members of this committee will be required before the average citizen will fully appreciate the value to the citizens of Wyoming of this honorable and outstanding committee. In the first place this is not, and never shall be, a political committee. Its membership will and must be from all political parties. It will not be a sectional affair; membership will cover the entire state. It will not be a committee to represent the doctors of Wyoming only. Its chief aims are educational and advisory. To educate and advise the people the legislature, the Governor, the state, county, and city officials.

It is to this committee that the citizens and officials should turn for advice on all questions of health and disease. Unbiased and a strickly scientific source of information on all questions of public health and medical knowledge, its opinions should and will be the court of last resort.

This committee will serve for a term of years so that its membership will in most cases serve for at least five years. The committee will organize and be willing and anxious to cooperate with the State Legislature, the Governor, and Board of Charities and Reform, the State Board of Health and all other state boards as well as county and city officials, on all medical and health problems. No charge or expense will be made for its assistance, and the only reward received by the membership will be that of service to Wyoming. No higher standard could be devised for such service to the people of Wyoming and the gentlemen selected are truly honored in being made members of this committee.

With such a committee to consult with, state, county, and city officials can no longer plead ignorance or hope to escape just criticism if they act on public health matters without consulting this committee and obtaining the knowledge they possess on these questions. Dr. E. L. Jewell of Shoshoni is the Chairman.

We reproduce in full the letter of our President announcing the personnel of the committee:

Dr. Earl Whedon, Secretary
Wyoming State Medical Society
Sheridan, Wyoming.

Dear Doctor:

After much thought concerning the organization of a permanent "Public Policy and Legislative Committee," I have decided to establish it in the following manner, making it partly elective and partly appointive.

The Committee shall consist of nine members, to include the Past President, who shall serve one year following his retirement as president. The President, to serve during his term of office and one year as Past President. The Presi-

dent-Elect serves three years, as President-Elect, President, and Past President; the Secretary serves each year as elected Secretary, and five members of the Committee to be appointed by the President to serve from one to five years.

The Committee of nine members will be as follows:

Dr. E. L. Jewell, Past President serves until ..... July 1932
Dr. R. H. Sanders as President and Past President serves until ..... July 1933
Dr. F. L. Beck, as President-Elect, President, and Past President, serves until ..... July 1934
Dr. Earl Whedon as Secretary serves until ..... July 1932
Dr. J. C. Kamp serves until ..... July 1932
Dr. J. L. Wicks serves until ..... July 1933
Dr. W. W. Horsley serves until ..... July 1934
Dr. O. C. Reed serves until ..... July 1935
Dr. Oliver Chambers serves until ..... July 1936

The Committee developed in this manner will have two new members each year; a new President-Elect, and one appointment to replace the member appointed for the one year term.

I would like to state that it has been very difficult to make these selections, as we have so many men who have taken so much interest in medical affairs of the state during the past two or three years.

I would suggest that the Past President of the Wyoming State Medical Society be Chairman of this Committee and call a meeting at some convenient place for January or February, and outline a policy to be carried out.

Very truly yours,
ROBERT H. SANDERS, M. D.,
President Wyo. State Med. Society.

The value a State places upon the health and lives of its citizens is a fairly safe index of the standard of the civilization to which its people have attained.

Not a few communities need wholly to reverse the view-point from which they regard the public health problem. The real question is, not what it costs to solve this all-important problem, but what it costs **not** to solve it. Compared to the former, the latter approximates the infinitesimal.

WILLIAM PEEL VS. FRED W. PHIFER, ET AL.

TO be sued for $114,275.00 is not the lot of most western doctors. Only lawyers with wonderful imaginations would ever think of such a thing because all men with normal minds know that Wyoming doctors never are that rich.

Yet Dr. Fred W. Phifer, the Wheatland Hospital, and Margaret Phifer were made the defendants in a suit in the United States District Court of Wyoming by William Peel and said suit was tried before Judge T. Blake Kenney at Cheyenne in November, 1931. The result of this trial was a verdict for Dr. Phifer, his brilliant wife, and the splendid hospital which they have built up by many long years work at the little city of Wheatland.

The medical profession of Wyoming extend to Dr. and Mrs. Phifer congratulations in the victory achieved, and honor them for the defense put up, which directly affects the lives and liberties of all Wyoming doctors. Cases such as this one are most often seen in times of financial depression when desires for financial gain are most apparent. At such times patients and some lawyers are often looking about and reviewing the acts of all doctors hoping to find some easy money. Why not sue my doctor, and if I win I will not have to work—fine.

A careful review of this case shows that Dr. Phifer, his assistant, Dr. Paul Holtz, the nurses, and all connected with this case rendered a great service in saving the life of an ungrateful patient, who would have died if this very service had not been given, and yet in payment they were tendered this suit with all of the worry and expense it caused.

If Peel suffered $114,275.00 damage as alleged, the Phifers suffered $1,000,000.00 damages in worry, in thoughtless criticism by persons who either knew nothing about the true facts or wanted to believe such charges because of jealousy.

It takes a man and woman far above the average in ability to construct and maintain such an outstanding hospital as the Wheatland General Hospital in as small a city as

Wheatland, Wyoming. The fact that such a hospital has grown as their labor is of itself evidence of the class of service there given. Yet all of this meant nothing to Mr. Peel. He only saw the possibility of his receiving some part of the $114,275.00 and costs of the case. And for this he would even try to blacken the reputation of the man and woman who had saved his life.

Some of the readers of this Journal may not remember or have heard the charges brought. On Feb. 24, 1927, one William Peel was brought to the Wheatland General Hospital suffering with a ruptured appendix and general peritonitis. An emergency operation was done by Dr. Phifer and Dr. Paul Holtz and the man's life was saved. Later an abscess formed in the pleural space around the right lung, which required a second operation and long weeks and months of drainage and expert care. Other complications arose that had to be met and cared for, and so from Feb. 24, 1927, to November 25, he was cared for, fed, and sheltered by Dr. Phifer and the Wheatland General Hospital. He was then transferred to Fitzsimons Hospital at Denver. Here his chest was reopened and the same drainage treatment again given. In January, 1928, he became very sick and on January 11 his chest was opened, two ribs were resected, and pus removed, also a piece of black rubber tubing, six or seven inches long. This tubing was of the same character as was used at that time in the Fitzsimons Hospital for such drainage but not the kind used by Dr. Phifer when Peel was a patient in the Wheatland General Hospital. Peel sued for damages, alleging that Dr. Phifer kept him under an anesthetic for five hours while doing the operation for the ruptured appendix, and that as a result his right lung was burned up and most of it later decayed and sloughed off. Of all the crazy dreams that takes the leather medal. Why should the right lung burn up and the left be perfect? This abscess was the natural result of the pus drainage from the abdomen upward into the chest cavity as was so beautifully shown by experiments conducted by grinding colored glass up very finely and placing it in the abdomens of guinea pigs, later found to have traveled up via the lymphatic into the chest cavity—and in just that way Peel's abscess occurred, and had it not been for the timely operation and treatment given by Dr. Phifer, Peel would have died as many thousands have done under similar circumstances not so skillfully treated. And then Peel sued Dr. Phifer for leaving a rubber tube in this pleural cavity, but Dr. Phifer had the proof. He had repeatedly taken x-ray pictures of Mr. Peel's chest while these treatments were being given and just at the time he left. When the case came to trial the splendid records and x-rays were produced. The testimony of experts said that there was no evidence of any tube when Mr. Peel left the Wheatland Hospital. To cap the climax, Dr. Phifer at that time only used amber colored tubes and of a smaller caliber and shorter size than the one said to have been found Jan. 11, 1928, in Fitzsimons Hospital where he had been opened up and drained in Nov., 1927. At the latter institution black tubing was used.

Who left the tube in Peel's chest? The jury said it was not Dr. Phifer; they said he was was not guilty of any malpractice, that he was of clean hands and that no damages were due to Mr. Peel. And so the case ended.

No, it has not ended. The results of that trial and the vindication of Dr. Phifer go on, and will for years affect the daily lives of all doctors in Wyoming as well as of Dr. Phifer. They give new faith in our courts, they teach that we are not to be the prey of every disgruntled patient who may hope to take away from us the savings of a lifetime of service. They show that assistance of our physicians, surgeons, and x-ray specialists can truthfully be given and that prejudice and sympathy cannot be the basis of law suits. Dr. George P. Johnston of Cheyenne, the dean of Wyoming doctors; Dr. Nathan Newcomber, x-ray specialist of Denver, Dr. Hershell Cohen, also of Denver, and Dr. Paul S. Holtz, now located at Lander, all testified to the skill and correct treatment given to Peel by Dr. Phifer and the

Wheatland General Hospital. Attorneys H. H. Clark of Denver and A. D. Walton of Cheyenne conducted the case for Dr. Phifer in a masterly manner and to Judge T. Blake Kennedy of the Federal District Court is due the honor of a fair and impartial trial—all that any honest person can demand. His instructions to the jury were judicial masterpieces, and we close by quoting a few paragraphs as follows:

"The first cause of action as it is by the pleadings directed to the defendant Fred W. Phifer, is one based upon the alleged negligence and carelessness of such defendant as a practicing physician and surgeon in the care and treatment of plaintiff in connection with operations upon his body which were conducted at the Wheatland General Hospital in Wheatland, Wyoming. The common ordinary meaning of the word, 'negligence' may be described as doing that which an ordinary person would not have done in like or similar circumstances, or the failure to do that which an ordinary, prudent, and careful person would have done in like or similar circumstances. Negligence, in order to be actionable, must be the proximate cause of the injury. By proximate cause is meant that cause which in natural and continuous sequence, unbroken by any efficient intervening cause, produces the result complained of, and without which the result could not have occurred. As the terms carelessness and negligence are used in the case here on trial they are limited in their scope and application to the duties and acts of a practicing physician and surgeon, and, in this respect, I charge you that if a person hold himself out to the public as a physician and surgeon he must be held to possess and exercise ordinary skill, knowledge, and care in his profession. Where an injury results from the want of ordinary skill or attention in the treatment of a case the physician or surgeon is held responsible for such injury.

"However, the physician or surgeon is not required to possess or exercise the highest degree of skill and care known to the profession in order to relieve him from liability. Only reasonable care and skill is required, which is such care and skill as is possessed by men of his profession in general, and at least the average degree of knowledge and skill possessed and care given by the members of his profession generally in the locality in which he practices. Therefore, if the defendant did not treat the plaintiff with such ordinary care and skill as I have defined to you, he would be guilty of negligence, and if damages resulted therefrom without fault on the part of the plaintiff, the plaintiff would be entitled to a verdict at your hands.

"On the other hand, should the evidence fail to show that the defendant doctor did not exercise ordinary care and skill in the work he did for the defendant, then he would not be guilty of any negligence and your verdict would be for the defendant.

"Manifestly a doctor is not bound to insure successful treatment or a cure unless there is evidence of a contract to that effect, which is not the case here, but only to do what is usually and ordinarily done by such physicians and surgeons in like circumstances to effect a cure. In considering this feature of the case and of the issues, the Court and jury may not set up standards of their own as to what is proper treatment of a case under given circumstances and conditions, but must be guided by those who are skilled in the medicinal art. So much for the duty which is imposed by law upon the defendant doctor in his treatment of the plaintiff."

"Gentlemen: You are the sole judge of the questions of fact which are submitted to you by the Court. You are likewise the judges of the weight to be given to the testimony of the different witnesses who have appeared upon the stand. You have the right to take into consideration the demeanor of the witness upon the stand, his bias or prejudice, if any has been shown, his interest in the result of the suit, or the verdict, if any, and his knowledge in regard to the things which he is purported to have testified, giving each and every witness that degree of credibility which he seems under all the circumstances of the case to be entitled to. If any witness may be found to have

testified falsely in regard to any material fact, you may disregard all his testimony in the case except as it may be corroborated by other reliable evidence or testimony.

"Take this case, gentlemen, and give it your earnest consideration, the light of your experience as business men, and with the exercise of your good common sense. Manifestly cases of this character or of any other character which come into a court of justice should not be administered by the courts upon the ground of sympathy for either party. Human nature is such that sympathy in all of us naturally flows to the afflicted and the unfortunate, but even immature reflection leads to the conclusion that because a person may be afflicted or unfortunate, the money or property of another should not, against his will, be appropriated for the relief of such unfortunate unless it be that the person from which contribution is sought is directly responsible for the condition of the other."

WYOMING NEWS NOTES

NATRONA COUNTY—The following officers were elected for the coming year: Dr. H. L. Harvey, President; Dr. W. O. McDermott, Vice-President; Dr. G. O. Beach, Secretary-Treasurer; Dr. N. E. Morad, Censor. Delegates: Dr. J. C. Kamp, Dr. George Smith, Dr. N. C. Geis.

SHERIDAN COUNTY—The Sheridan County Medical Society and the Staff of the Sheridan County Memorial Hospital held their January meetings following the usual monthly dinner, January 12. Both Societies elected the same officers: President, Dr. R. E. Crane; Vice-President, Dr. W. F. Schunk; Secretary-Treasurer, Dr. L. C. Meredith. Several very interesting cases were reported and discussed. This was a most interesting meeting. The Staff of the U. S Veteran's Hospital No. 86 invited the members of the Staff of the Sheridan County Memorial Hospital and the members of Sheridan County Medical Society to meet with the Staff of the Veterans Hospital No. 86, Tuesday, January 19, which invitation was accepted with pleasure by the membership of the two societies. These Staff meetings are of a highly interesting and instructive nature and the Sheridan doctors greatly appreciate the advantages of such meetings.

Chicago Establishes Crime Clinic

Scientific criminology scored a point with the establishment, in Chicago, last spring, of the Behavior Clinic of the Criminal Court of Cook County, a diagnostic psychiatric service organized by the Bureau of Public Welfare for the benefit and advice of the judges in that jurisdiction.

The clinic, for which the sum of $21,000 was appropriated for the first year, will examine all prisoners referred by the Chief Justice or Presiding Justice after conviction and before disposition of the case. The clinic is under the direction of Dr. Harry R. Hoffman, who will be assisted by the following Staff Psychiatrists: Dr. Harry A. Paskind and Dr. Samuel Wick; Psychiatric Social Workers: Mrs. Esther J. Mohr and Mrs. Mary McPartlin; Psychologist: Miss Mary L. Campbell.

It is the aim of the Behavior Clinic to make an intensive medical, psychological, psychiatric and social study of each case, and then to recommend disposition in one of the following four ways: probation, discharge, sentence, or commitment to a mental institution. The final report of the clinic will be made to the sitting judge on the basis of a staff conference of the four experts who interviewed the offender.

In an announcement outlining the purposes and activities of the clinic, its rationale and philosophy are stated as follows: "Since what is proposed is at least the possibility of returning the patient to his social environment, then only such study of his place in society to which the man is returning can give any indication of how suitable or unsuitable it is to aid him in a better adjustment than he was able to achieve previously. The welfare of both the accused and the community in which he lives is so intimately concerned with what will happen if he does so return, that such preliminary study would seem to be the first requisite to intelligent after-care and supervision."

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V February, 1932 Number 2

THIS year marks the fiftieth anniversary of the discovery of the tubercle bacillus by Koch. That event gave intelligence and direction to man's attempt to master his age-old enemy. During the past three decades, the fight has become an organized one. The decline in the death rate has shown consistent acceleration, though a decisive victory is not yet within grasp. At this fitting period in the movement, P. P. Jacobs, veteran tuberculosis worker, gives us a lucid statement of the present situation in his book, "The Control of Tuberculosis in the United States." To give a balanced picture of the contents of this tersely written volume on a very broad subject is impossible—a few highlights must suffice to suggest its general flavor.

PRESENT STATUS OF TUBERCULOSIS CONTROL

In 1889, Hermann Biggs, at the request of the Commissioner of Health of New York City, formulated a statement concerning the communicability of tuberculosis and outlining a plan of attack against it. Indifference and antagonism greeted the plan, for Biggs was far ahead of his time. The Commissioner nevertheless issued a circular on "Contagious Consumption," and this marks the first step in the educational campaign. Four years later, Biggs' original report formed the nucleus of a more complete scheme. The struggle to secure its adoption was tedious but succeeded at last.

Briefly, the program recommended included (1) education of the public, (2) compulsory reporting of cases by public institutions and the recommendation that physicians report private cases, (3) home visitation of patients, (4) the provision by general hospitals of separate wards for tuberculous patients, (5) the provision of a "consumptive hospital," (6) the establishment of laboratory facilities. In time, other measures, such as public health nursing, clinic service, organization of voluntary associations, sanitary measures, etc., were added. The compulsory notification of tuberculosis by all physicians and householders became law in 1897.

Meantime, Sir Robert Philip in Scotland was steadily establishing "The Edinburgh Anti-Tuberculosis Scheme," first proposed in 1887. His plan emphasized the need of searching out cases at home and pivoted about the out-patient departments of hospitals. This gave the movement in Great Britain a somewhat different trend but also influenced American thought. In the United States, the campaign was characterized by the participation of non-official agencies. Well organized health departments were few; there was need for leadership. The first voluntary organization was the Pennsylvania Tuberculosis Society, founded in 1892. Others followed, and in 1904 the National Tuberculosis Association came into being with Trudeau as its first president. The Sixth International Congress on Tuberculosis, held in Washington in 1908, crystalized opinion and unified the several efforts into a nation-wide movement.

Methods of Control

Part II of the book describes the methods employed in the control of tuberculosis. The most important premise of the founders was that an enlightened public opinion is essential in any scheme of tuberculosis control, and further that sound knowledge about the disease is the individual's chief protection. The keynote, therefore, was education. Early efforts in this direction were naturally some-

what awkward but soon became surprisingly effective. With experience has come the conviction that the process of stirring the people out of their lethargy and enlightening them, vaguely expressed in the magic word, "education," depends upon certain techniques of publicity and organization.

The molding of public opinion, the establishment of control machinery, the maintenance of treatment facilities and so on, involve procedures which are today fairly well standardized. Separate chapters of Part II deal individually with these methods. A few chapter headings will serve as examples: Adult Health Education; The Spoken Word; Child Health Education; Case Finding; Statistics and Surveys; Fund Raising.

Scientific Basis of Control

Part III addresses itself to the fundamental policies of the tuberculosis movement in the United States, one chapter of which deals with the scientifice basis of the program of action. New discoveries have gradually influenced the movement. For example, at first little distinction was made between minute or gradual dosage of tubercle bacilli and massive dosage. Many fondly hoped that it was possible to control infection by such measures as those directed against spitting. Modern conceptions of infection have greatly modified this hypothesis.

The first postulate accepted today is that the tubercle bacillus, the sole direct cause of tuberculosis, is passed from man to man and from cattle to man. It is conceded that at least 90 per cent of infection is transmitted directly from one human being to another by sneezing, coughing, kissing, etc., and by direct contact with moist or dried tuberculous sputum. Dust-borne infection is probably of minor consequence.

The prevalence of infection rises gradually from infancy until at adult life it may include some 80 to 95 per cent of the adult population. Morbidity or actual disease, however, is relatively very low. A long interval usually elapses between infection and the manifestations of disease, but these are not uncommonly precipitated by collateral events in the life of the individual. The ultimate suppression of tuberculosis is held by some to be a possibility.

The events leading to disease follow a fairly definite sequence. The influence of heredity has been discarded, but the infant born in a tuberculous *milieu* can hardly escape severe infection. Casual contact accounts for most cases of milder infection. The first infection, if severe (but not severe enough to cause immediate death) usually expresses itself in a primary focus, small or large, with involvement of the tracheobronchial lymph nodes. Concomitantly, allergy or sensitization is established. This physiologic-pathological complex is designated as childhood type of tuberculosis. The early pathology may disappear beyond recognition or it may remain latent many years, evidencing itself only by X-ray shadows. Very frequently, reinfection takes place in early adult life and, favored by circumstances that tax the resisting powers of the individual, the adult type of disease, characterized by destruction of tissue, may follow.

What of Immunity?

Whether infection will fortify the body against further inroads of the tubercle bacillus or predispose it to the adult type is dependent upon various circumstances and influences, some of which can be controlled. Acquired immunity is insufficient to protect the individual against disease if repeated doses or an extremely large dose of bacilli enter the body. The contributory factors of tuberculosis morbidity include anything and everything that adversely influence the health of man. Attempts to produce artificial immunity have not yet succeeded. At the present time, it seems unwise to extend the use of BCG, except for experimental purposes.

The treatment of tuberculosis is based on the assumption that rest, fresh air, good food, and freedom from worry, plus medical supervision, will bring about a natural process of healing. Climate has little, if any, specific value, but there is much to be said in favor of certain types of air conditions. Surgery and light are important adjuncts to the treatment.

On these general premises, the plan for preventing and controlling the disease is based. While alarm is expressed by some to the effect that the detuberculization of the population may produce a race of high susceptibility to tuberculosis, others hold that increased intelligence and eternal vigilance will protect against a recurring disastrous infection.

Part IV describes a number of illustrative programs and thus brings to a focus the general principles discussed in previous chapters. Throughout the book, the reader desiring special information is referred to original and pertinent sources with a discrimination born of the rich experience of the author.—*The Control of Tuberculosis in the United States, P. P. Jacobs, Ph.D.*

DURING COLLEGE DAYS, a young man should give thought to his future. He should have an objective in mind and a clear idea of the field of business in which he intends to engage.

Below are ten reasons why you should consider the Life Insurance Business.

Because:

1. You are in business for yourself and your earnings will all be YOURS.
2. You write your own pay check.
3. You are never out of a job.
4. There is no old age limit to put you "on the shelf."
5. Your earning power is projected further into the future than most businesses.
6. You will gain broadened experience from a large number of contacts.
7. It is a healthful and interesting work.
8. More than 95 per cent of all men in America earn less than $5000 a year. Why? Because they're in blind alley jobs.
9. You select those with whom you wish to do business.
10. We have undeniable proof that there are no "Bad Life Insurance Years."

We will be pleased to show you the unusual opportunities in this business.

Provident Mutual
Life Insurance Company of Philadelphia
Founded 1865

GEO. N. QUIGLEY
General Agent
1008 Patterson Bldg. Denver, Colo.



For full information about the property and the price and terms, see

SETH B. BRADLEY
The Bradley Realty Inv. Co.
826 DENVER NATIONAL BLDG., MA. 4318

IN HOSPITAL ZONE

Suitable for physicians

1778 GILPIN ST.

Cor. 18th Ave.

Eleven-room modern house with beautiful hardwood finish, on 3 corner lots and enough ground for future expansion, garages, etc.

The third story could be taken off and the house extended to the alley in Spanish architecture and the whole building stuccoed, and the house has other possibilities.

Many physicians are locating their offices in the residential districts, such as Dr. Robert G. Packard at 18th and Gilpin St., Dr. F. P. Gengenbach at 19th and Gilpin, Dr. Cuthbert Powell, Dr. Leonard M. Van Stone and Dr. H. J. Von Detton at 16th and Humboldt, and here is your chance to do likewise.

Colorado Hospital Association

OFFICERS

FRANK J. WALTER President Saint Luke's Hospital Denver	GUY M. HANNER First Vice President Beth-El Hospital Colorado Springs	SISTER SEBASTIAN Second Vice President Mercy Hospital Denver	R. J. BROWN Treasurer Boulder-Colorado Sanatorium Boulder	WILLIAM McNARY Exec. Secy. Univ. of Colo. School of Med. & Hosp. Denver

TRUSTEES

G. M. HANNER Beth-El Hospital Colorado Springs, Colorado	B. B. JAFFA, M.D. Denver General Hospital Denver, Colorado	G. WALTER HOLDEN, M.D. Agnes Memorial Sanitarium Denver, Colorado	J. E. SWANGER Modern Woodmen of America Sanatorium Woodmen, Colorado	MAURICE H. REES, M.D. Univ. of Colo School of Medicine and Hospitals Denver

COMING MEETINGS:

Colorado Hospital Association Quarterly Meeting—Thursday, March 10, 1932, at 12:45 P. M. Children's Hospital, Denver.

Colorado Hospital Association Quarterly Meeting—Tuesday, June 7, 1932. Boulder, Colo.

Colorado Hospital Association Annual Meeting—Tuesday and Wednesday, November 8 and 9, 1932. Colorado Springs, Colorado.

Western Hospital Association Annual Meeting—June 9, 10 and 11, 1932. Utah Hotel, Salt Lake City, Utah.

Mid-West Hospital Association Annual Meeting—June 2 and 3, 1932, St. Louis, Missouri.

Texas Hospital Association Annual Meeting—April 8 and 9, 1932, Dallas, Texas.

American Hospital Association Annual Meeting—September 12 and 16, inclusive, 1932, Detroit, Michigan.

* * *

EDITORIAL NOTES

CONFIDENTIAL INFORMATION CONTAINED IN HOSPITAL RECORDS

THE members of the Colorado Hospital Association should establish a policy to be followed in giving information contained in the hospital records. At the present time there is no such uniform policy among our hospitals in regard to this practice.

Of late the insurance companies have been requesting more and more data. It is not fair to tell the patient when he enters the hospital that all his statements will be confidential, and then at a later date force him, or allow an insurance company to force him, to consent to having his hospital chart inspected by someone from the outside. It seems likely that, if the hospital expects in the future to be able to obtain a worthwhile record from the patient, the institution must establish a reputation for keeping the information contained therein confidential. Otherwise, if the patient feels that anything he might say, which would aid in the diagnosis and treatment of his case, but would be derogatory to him if divulged in a court or given to an insurance company, he will be very prone to omit this data when giving information regarding his past history, and thereby defeat the real purpose of our hospital records.

Furthermore, a great deal of time is now wasted by hospital employees in copying these hospital records, or in testifying in court regarding them.

It seems to the Editor that the time has arrived when the hospitals should take a stand in this matter, and establish by means of a friendly suit in the courts their right to refuse information from their records. The law enacted recently by our state legislature which makes physicians exempt from giving testimony could perhaps be made to accomplish this; and, if not, our legislative committee should keep the situation in mind when the next biennial session of legislature convenes, and attempt to bring about some legislation for the protection of the hospitals in this regard.

The establishment of such a policy would make hospital records strictly confidential between the hospital and its patients, and would preserve absolute secrecy in the personal matters contained on the charts. Such a policy could in no way be detrimental to the patient, and would improve the situation from the hospital's point of view.

OBJECTIVES OF THE AMERICAN HOSPITAL ASSOCIATION FOR THE YEAR 1932

THE American Hospital Association has recently sent a card to each of its members outlining some of the objectives toward which the association will work during the year 1932. The following matters of im-

PRINTING IS THE CORRECT PRESCRIPTION

for the apathetical condition of the Doctor's, Hospital's or Sanitarium's Business.

¶ The judicious use of correct stationery, a tactful reminder, an engaging booklet or an illustrated prospectus will do much to restore the public's interest in your practice or institution. We shall be glad to submit plans for the development of any or all of these ideas.

THE MILES & DRYER PRINTING COMPANY

1936-38 Lawrence St. DENVER Telephone KEystone 6348

MODERN AMBULANCE SERVICE *for* MODERN NEEDS



AMERICAN AMBULANCE CO.
YORK 0070 • 1860 DOWNING ST • DENVER, COLORADO

STEADY-SAFE REFRIGERATION



Simplified Refrigeration

With the

SERVEL HERMETIC



THE WINTER-WEISS CO.

10 So. Broadway Denver

EXPERT REFRIGERATION SERVICE

portance are to be brought before Congress and the Legislatures of the different states:

The utilization of our hospitals for the care of sick and disabled veterans.

Increased tariffs on supplies used by our hospitals.

Legislation protecting hospitals in service to persons injured in automobile accidents.

Tax exemption for hospitals in various states.

The first three are of vital interest to every hospital in Colorado. Whether you are a member or not you will derive benefits from such a program. It is only fair that you contribute your bit toward the successful completion of the plan. You can do so by lending your support when called upon to do so, by joining the association if you are not a member, or by continuing your membership if you already belong to the group.

Never before has the national association undertaken such an extensive program. The Colorado Hospital Association pledges its cooperation toward the successful execution of the undertaking.

A GREATER FIELD FOR SOCIAL SERVICE*

HELEN CONWAY

"You cannot fill a man with food and turn him loose" said the Chairman of the Citizen's Unemployment Committee recently in defending expenditures for social case work and for operation of so-called character building organizations during the coming winter. It strikes me that this same line of reasoning can be used in advocating increased use of social service here in the hospital. You cannot fill a man with a decompensating heart with digitalis, a man with lues with salvarsan, or a patient with incurable carcinoma with sedatives, and turn him loose. They are human beings, social beings, who unlike the little child did not "come out of the nowhere," nor will they return to "the nowhere." "The clinical picture," said the late Doctor Francis Peabody of Harvard Medical School, "is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relatives, his friends, joys, sorrows, hopes and fears." When he leaves the hospital it is to return to that home, family, and occupation. Do you know whether that man with the incurable carcinoma will spend his last days as pleasantly and comfortably as possible? Will his family suffer from want through the disability of the bread winner? Will the patient's family have the Visiting Nurses to teach them how to make the patient most comfortable and to assist them with his care? Will the family have some one to advise them regarding employment for another member of the family to take the place of the disabled one, and to aid them in securing this employment. After the death of the patient will some unscrupulous person get the small insurance from the widow unaccustomed to handling business affairs or will the widow's same lack of business experience lead her to buy a new car or a grand piano with the small bequest?

Will the middle-aged man with the decompensating heart return to his solitary room on the second story of a warehouse two blocks from any store—as was true of a cardiac patient recently discharged from our hospital with a recommendation for "complete rest" Will he be able to secure food, let alone digitalis?

Will the man with syphilis continue his treatment week after week without encouragement and sometimes financial assistance? Will the contacts be examined? Is there family friction that might be lessened by interpretation from an outsider? Is there a moral problem which might be adjusted? Is the community being endangered if the patient is allowed to go his way without supervision?

Just as the man without a job cannot be forgotten when he has been fed, neither can the man with carcinoma, a decompensating heart or lues be dismissed from our minds when he walks out of the hospital after several days or weeks hospitalization.

*From Social Service Dept., Colorado General Hospital.

THE GOLDEN PLUNGE

OPEN ALL THE YEAR AROUND

The Clean and Sanitary Swimming Pool

For Ladies and Gentlemen

Delightfully Warm and Pleasant in Coldest Weather

Thirty Minutes from Denver on Fine Highways

Grant Churches, Manager Phone Golden 266

TAYLOR-MADE
Kenlastic
REG U.S PAT OFF
CORSETS

ARE MADE TO SUIT EVERY NEED FROM THE LIGHTEST WEIGHT GIRDLE TO THE HEAVIER SURGICAL CORSET

ABDOMINAL BELTS WITH CORSET BACK

SPINAL CORSETS WITH PELVIC STEELS AND SHOULDER STRAPS

A NEW KENLASTIC SEAMLESS STOCKING IS MADE WITH EXTENSION HEEL

CHAS. B. E. TAYLOR

ELIZABETH KENDRICK TAYLOR

204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

COLORADO PHOTO COMPANY

Commercial and Art Photographers



QUALITY AND SERVICE

"We Never Miss"

1822 WELTON ST. MAin 5671

DENVER, COLO.

AETNA

COMPLETE MALPRACTICE PROTECTION

By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE AETNA LIFE INSURANCE CO.

Fred E. Breisch, Manager

529 Midland Savings Building

KEystone 6205

ST. LUKE'S HOSPITAL, DENVER

Saint Luke's Hospital was founded on Feb. 12, 1881, under the leadership of the late Bishop John F. Spalding of the Episcopal Diocese of Colorado The following twenty-four persons were associated with him in this undertaking, being the original incorporators and the first trustees of the society: John F. Spalding, J. H. Kimball, John B. Alexander, R. H. Worthington, John C. Stalcup, W. H. Worthington, H. M. Haynes, J. L. Bellam, G. C. Rafter, E. J. Brooks, J. A. Thatcher, B. Cornforth, H. Martyn Hart, Albert B. Lyman, J. A. Russell, O. E. Ostenson, C. A. Raymond, C. H. Marshall, F. J. Marshall, J. S. Moody, Wilbur F. Stone, J. Best, E. S. Solly, and F. J. Bancroft. Later the hospital was re-incorporated under the title of The Saint Luke's Hospital Association, by Bishop Irving P. Johnson, Arthur W. Ponsford, and John W. Hudston. At that time the Board of Managers was reduced to the following members: Rt. Rev. Irving P. Johnson, Lucius F. Hallett, Harold Kountze, John Evans, John W. Morey, Roblin H. Davis, Frank M. Taylor, and Frederick W. Standart. The present Board of Managers is as follows: Rt. Rev. Fred Ingley, President; Frederick W. Standart, Treasurer; Thomas S. Rattle, Secretary and Assistant Treasurer; John Evans; John W. Morey; Robin H. Davis; and W. L. Petrikin.

The first building occupied by Saint Luke's Hospital was located on Federal Boulevard. It was a large residence remodeled for hospital purposes, and served as such until 1887, at which time the present main building was erected. Two additional wings, the North and East, have since been added.

Saint Luke's Hospital is a private institution, under the jurisdiction of the Protestant Episcopal Church of the Diocese of Colorado. It is a self-supporting hospital. It is rated a Class-A hospital by the American College of Surgeons, and approved for the training of internes by the American Medical Association. It has one of the oldest and largest training schools in this part of the country, with an average enrollment of one hundred and ten students. Only high school graduates are accepted for enrollment, and these candidates are given a three year course of intensive training and study.

The hospital has a capacity of two hundred and twenty-five beds and provides for all types of medical and surgical cases, together with special service for orthopedic work. It also has a pediatric ward of twenty-one beds for children up to fourteen years of age. Medical and surgical wards for both men and women, as well as private rooms, are provided, ranging in price from $2.75 to $10.00 per day. Fifteen graduate nurses are employed to supervise the nursing in the hospital.

The surgical department consists of four major surgery rooms; one dressing room; and one ear, nose and throat room. This department is under the direction of a chief surgical supervisor, who is assisted by two graduate surgical nurses and several students of the training school.

The maternity department has thirty-seven beds, with thirty bassinets. There are two delivery and two labor rooms; and the department averages between five and six hundred deliveries per year. A full time anesthetist is available to administer gas and other anesthetics for deliveries.

A complete hydrotherapy and physiotherapy de-

DOCTOR!-- WE ARE HERE TO SERVE YOU PROMPTLY

Emergency Garments Carried at All Times

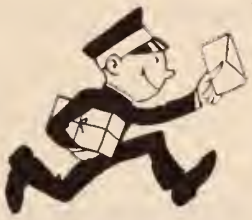
SPENCER CORSETS
and Surgical Garments
218 EMPIRE BLDG.
TAbor 6289

Conway's
FLORAL SHOP
1064 SO. GAYLORD
PEarl 0622

A valentine of flowers sent to your wife will bring a renewed glow of happiness to her eyes. Let us arrange them for you. A pot of tulips sent to your mother or friend will bring a breath of Spring.

WE DELIVER

LET
The WESTERN
MESSENGER
SERVICE



At your service, when you're in a hurry

Phone TAbor 5345

424 18th St.

Run Your Errands Denver Colorado

MONTCLAIR TRAINING SCHOOL

FOR BOYS AND GIRLS

A Christian Home for boys and girls to which any child from 5 to 16 years is eligible. It is our endeavor to create a homelike atmosphere and to fulfill every need in the development of ideal childhood.

Boys are taught manual training, metal and leather crafts, physical culture, vocal and band instruction. Our Cubs and Boy Scouts develop character.

Girls are taught home economics and various household duties, vocal and band instruction. Camp Fire leadership will set an example of ideal womanhood.

Rates very reasonable. School endorsed by excellent references. Inquire Headmaster.

Phone YOrk 1765 7125 East Colfax Avenue Denver, Colorado

PENCOL
DRUG STORE

Denver's Leading Druggists

504 E. COLFAX YOrk 8300

BIOLOGICS—OXYGEN
PRESCRIPTIONS

At Night Call FRanklin 0041-W

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of
ORTHOPEDIC
APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.

Phone KEystone 2702

Denver, Colo.

partment is maintained under the management of a trained physiotherapist and masseuse.

The X-ray department is under the direction of a capable roentgenologist and doctor of medicine, assisted by two technicians. The X-ray equipment is complete in every detail with the exception of a deep therapy machine.

A clinical pathology department is maintained, capable of performing any laboratory tests which may be required by members of the staff. This department is under the direction of a recognized pathologist, assisted by three technicians.

Two registered dietitians, trained in dietotherapy, are in charge of the dietary department. They supervise the entire food service in the hospital and are capable of calculating any special diets which the staff physicians may order for patients.

The hospital maintains its own laundry. A special feature of interest to patients is the service of a full-time barber in the hospital. Shop or room service is available if desired.

The staff of the hospital is divided into executive, attending, and associate groups, with an additional list of approved physicians, who are invited to avail themselves of the facilities of the institution. The present resident staff consists of four senior and three junior internes.

* * *

The foregoing is one of a series of brief descriptive histories of Colorado Hospitals and Sanatoria to be published in this department of Colorado Medicine for the general information of the medical profession.

COLORADO NEWS NOTES

CANON CITY—Dr. H. C. Graves, Jr., has returned to Canon City after spending several months in Boston attending the Harvard Medical School.

COLORADO SPRINGS—Dr. Bradford J. Murphey was elected honorary president of the Colorado Society for Mental Hygiene at the annual meeting held January 18 in Denver.

DENVER—Dr. and Mrs. J. N. Hall left Denver January 25 for a motor trip through Arizona with Phoenix as headquarters for a few weeks.

DENVER—Dr. Robert Levy addressed the Midwest Section of the Triological Society January 20 in Kansas City, Mo.

DENVER—Dr. Rudolph Albi spent the holidays on the Pacific Coast with his son Perrino who is now established in San Francisco.

DENVER—Friends of Dr. H. G. Wetherill will be pleased to learn that he has recovered from an illness following his visit to Denver in December.

DENVER—Dr. George Moleen has been confined to his home for several weeks following an attack of influenza but is now rapidly progressing to recovery.

DENVER—Dean Maurice H. Rees represented the Medical School of the University of Colorado at the annual meeting of the American Association of Medical Colleges held at New Orleans in December. Dr. Rees was president of the Association for 1931.

DENVER—Dr. and Mrs. Henry Sewall are happily located for the balance of the winter at La Jolla, California.

NURSES
OFFICIAL REGISTRY

Established to Meet the Community's Every Need in Nursing

Hourly Nursing Service.
Under-Graduate and Practical Nurses Provided.
Positions Filled.

Information on all nursing service.

This registry is endorsed by the Colorado State Graduate Nurses' Association and the American Nurses' Association.

KEystone 0168

ARGONAUT HOTEL

THE RESTLESS BED-RIDDEN PATIENT
Can be calmed and interested with an aquarium of
LIVE BEARING TOY TROPICAL FISH

Rare and Interesting

Unusual and beautiful with the lure of color tones, the many forms of Tropical fishes hold never-ending fascination for the beholder. Not only in form and color, but even in habits of life are they an interesting study. These little creatures, having been acclimated to aquarium life and their usually minute size, make it easy to keep a collection within a small space.

LARGEST STOCK OF TROPICAL FISH IN THE WEST

Write for Price List

AQUARIUMS AQUARIUM SUPPLIES

AQUATIC VEGETATION

Large collection of Aquatic plants, enough to balance a 10-gallon aquarium, sent postpaid $1.75

CHAS. T. GORE

4524 DECATUR ST. GAllup 0410 DENVER, COLO.

SOME ONE HAS TO SELL THE BEST COAL
SO WE DO!
"L.M." Lignite quality Lump Coal. Tremendous heat. Very little ash. A great money and labor saving coal. We guarantee it. Why not try it. Oil coke 99 per cent pure. (Hotter than hot) $11.50 per ton. Other grades of coal at prices to suit.
Great Western Fuel & Hardware Co.
TA. 5353 Denver 633 15th St.

Office Phone M. 321 Res. Phone M. 4422-R
GEO. LOXAM
Surgical and Invalid Supplies
20 Independence Bldg.
COLORADO SPRINGS, COLO.
Physicians and Surgeons' office supplies, Surgical Braces and Supports, Operating Tables, Surgical Dressings, Enamelware, Rubber Goods, Laboratory Supplies.
Instruments Repaired
Trade discounts to Physicians, Surgeons

Rose Ballinger, Mgr.
U. S. MULTIGRAPHERS
Multigraphing
Mimeographing *Addressing*
Folding *Mailing*
Typing
711 Security Bldg. Telephone TA. 3003

THE TROWBRIDGE TRAINING SCHOOL
A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN
The Best in the West
Est. 1917
Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address
E. HAYDN TROWBRIDGE, M. D.
650 Chambers Bldg., Kansas City, Mo.

FORT COLLINS—Dr. and Mrs. W. A. Kickland have sailed for a two-month cruise of Mediterranian ports.

FOR COLLINS—Dr. C. H. Platz was elected president of the Rocky Mountain Pediatric Society at a meeting held January 16 in Denver.

PUEBLO—Dr. J. S. Norman has returned to Corwin Hospital after an absence of several months during which time he studied in Europe.

PUEBLO—Dr. A. L. Fugard has been appointed executive secretary of the Child Welfare and Public Health Association.

EDITORIAL NOTES AND COMMENT

(Continued from Page 56)

Work of Employees' Mutual Benefit Associations

The marked increase in the work of the employees' mutual benefit associations is attracting the attention of persons interested in the health of industrial workers.

This survey was made for the purpose of ascertaining to what extent the employees' mutual benefit associations have gone beyond their primary function of providing certain fractions of wages when sickness causes loss of time from work, to a broader program of health improvement and a better care of their disabled members. As a whole the associations are still essentially insurance organizations, making no attempt to control either the incidence or the severity of disability afflicting their members. However, approximately 43 per cent of the associations replying to questionnaires sent out by the U. S. Public Health Service reported that improvement in health had probably resulted from the work of the associations; 36 per cent stated that the number of absences on account of illness had been reduced. Only a small number of these attributed the reduction to a decline in the number of unnecessary absences resulting from the work of visiting nurses and investigators.

Some of the more progressive organizations are making an effort to shorten the duration of disability by assisting in provisions for adequate medical attention and nursing care. Others are giving physical examinations and carrying on a program of health education.

The sick benefit associations in this country are not a recent development. The av-

GUARANTEED CLEANING!

We Guarantee to Clean Wool Blankets Without Shrinkage.

We specialize on lace curtains, draperies, bed spreads, center pieces, and window shades. Highest quality work always.

DENVER LACE CLEANING COMPANY

4755 WASHINGTON ST. DENVER KEystone 7528

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically Limited Class Now Forming

Special classes for Nurses. Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R 3762 High St.

Elna Hoagland, Pres.

4 out of 5
DOCTORS AND DENTISTS
OF THE
REPUBLIC BUILDING

Have found that their income has increased since becoming our tenants, notwithstanding the present depression.

Ask most any of them about it.

If you wish to become a member of the Republic Building Medical Family, see Mr. Drew, 210 Republic Building. Several desirable locations are available.

NEWCOMB REALTY CO., Managers

210 Republic Building KEystone 7231

P S.—2,800,000 persons used the facilities of this building in 1930.

SUPPRESS PUTREFACTION
WITH A FOOD
LACTO - DEXTRIN
(Lactose 75%—Dextrine 25%)
Cooperates with Nature—provides the right soil for the growth of a normal intestinal flora.
Samples and literature on request
The Battle Creek Food Co.
Battle Creek, Michigan



for Quality
Zinc Etchings
Color Plates - Half Tones
Seeleman-Ehret
Photo Engravers
Tabor 2701
1950 Champa Street
Denver Colorado

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC
BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

erage age of the 312 associations which reported their age was twenty-one years. The largest number of associations were from ten to fourteen years old. Two per cent of those reporting had been operating over fifty years.

These associations in fulfilling their primary function of providing cash benefits seldom err on the side of over-insurance, since one-fourth of the associations pay less than $1.00 per day, and one-half pay from $1.00 to $2.00 per day. The most popular rate of benefits is from $9.00 to $11.00 per week. Quite frequently the rate of payment to female members is considerably less than the rate paid to males.

The maximum period for which benefits may be paid varies as greatly as the rate paid. Thirteen weeks is the most frequent period, but the length of time for drawing benefits ranges from five weeks to over a year or to the full duration of disability.

Virtually no attempt has been made to insure against the uneven cost of treatment of different diseases. A case in which skill in surgery is required ordinarily receives no larger benefit than a case of chicken-pox, causing absence from work for the same length of time. Probably insurance against the uneven costs of treating different diseases would help to dispel the bugaboo of unnecessary absenteeism.

Practically as many sick benefit associations are purely employee societies as cooperative organizations of employer and employee. At least 37 per cent of the reporting associations receive no financial help from the company and an additional 13 per cent receive only nominal assistance. It is interesting to note that sick benefit associations are beginning to realize that they have a bigger and broader field than merely making cash payments, namely, the discovery and correction of physical impairments; the promotion of health educational activity, especially in the hygiene of living; and better medical care when their members are disabled.

(Continued on Page 28)

W. T. ROCHE
Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 YOrk 0901

18th at Gilpin

Phones KEystone 5287
KEystone 5288

Established 1874

The J. DURBIN SURGICAL SUPPLY CO.

1632 WELTON STREET DENVER, COLO.

QUALITY

Surgical Instruments, White Enamel Furniture, Hospital and Sick Room Supplies, Rubber Goods, Hearing Appliances.

Manufacturers and Fitters of Trusses, Elastic Hosiery, Abdominal Belts, Arch Supporters

We Rent Invalid Chairs, Beds and Infra Red Lamps

SHELVING
CABINET WORK
REPAIRS

At your home or office.
One hour or several days.
Expert work.
Reasonably priced.

TAKE-APART SHELVING CO.

W. E. June, Mgr.

22-24 E. First Avenue TAbor 7752

We have at various times employed Mr. June to install shelving equipment, both at our place of business and at the house of the writer.

His workmanship has been excellent and prices very reasonable.

(Signed) W. A. HOVER.

Loveland Hospital and Clinic
Inc.

MEDICAL AND SURGICAL SERVICE

428 Lincoln Avenue

LOVELAND, COLORADO

W. P. Gasser, M.D., *Pres.*
J. J. Gasser M.D. *Vice Pres.*
Alma Becker, *Sec.- Treas.*
Ruth Garland, R. N.
Gertrude Blevins, *Lab.Tech.*

Maintaining the highest standards of ethical service in a community of growing importance as a medical center.



THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

Montclair Sanitarium

A HOSPICE FOR THE ELDERLY

BEAUTIFULLY located near Colorado Woman's College. On the outskirts of Denver. Automobile highways and street cars near by, yet not obtrusive.

American home atmosphere. Devoid of objectionable institutional features.

We invite inquiries as to rates, facilities, etc., from qualified ethical physicians.

Corra Larson Reed, R. N., Superintendent

1690 QUINCE ST. DENVER, COLO.



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. SOuth 5583

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



A Corner of the Sixty-Five- Bed Heliotherapy Solarium

THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course



THE PRESBYTERIAN HOSPITAL

Modern fireproof building—Telephone, hot and cold artesian water, lavatory in every room—Light, airy rooms—Reasonable rates—Every facility for scientific diagnosis and therapy—Fully equipped pathological and x-ray laboratories and dietetic department.

East Nineteenth Avenue and Gilpin Street Denver, Colorado

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING

Under New Management

PHYSICIANS AND SURGEONS HOSPITAL

Medical
Surgical
Obstetrical

2939 E. COLFAX YOrk 1424

Bessie A. Keener, Supt.

PHOTO ENGRAVING AND MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO-ENGRAVERS AND MAP MAKERS
KEYSTONE 5634 -830- 18TH ST.
DENVER, COLO.



WOODCROFT HOSPITAL—PUEBLO, COLORADO

Woodcroft Hospital was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent
H. A. LaMOURE, M.D., Medical Director F. M. HELLER, M.D., Neurologist and Internist
P. A. DRAPER, M.D., Resident Physician

"Say it with flowers"

Park Floral Co.

Phones M. 1713-1714 1643 Broadway

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5111
DAY STORAGE $5 PER MONTH
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

The proper flowers for every occasion

EVERETTE R. BROWN
FLORIST

Cut Flowers, Plants, Designing

615 16th St. MAin 4427

Graduate School *of* Medicine
THE TULANE UNIVERSITY
OF LOUISIANA
Approved by the Council on Medical Education of the A. M. A.
Post graduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

EDITORIAL NOTES AND COMMENT

(Continued from Page 20)

Diet and Disease in Native Races in the Tropics

"During the past ten years the conception that disease may be due to deficiency of this or that element or complex in the food has developed greatly. Formerly, the idea of 'deficiency disease' centered around the vitamins, and in this category only such conditions as scurvy, beri-beri, rickets, and keratomalacia were included. Now, however, it is gradually being realized that vitamins are not the only substances the absence or insufficient supply of which may give rise to deficiency disease; and that lack of a sufficiency of such mineral elements as calcium, iron, iodine, manganese, and possibly some of the rarer elements, may also cause disease of this order. The truth is slowly being made plain that man is composed of what he eats; that defects in the architecture of the human edifice are largely due to defects in the quality of the food, especially during the growing period of life. These defects are often at the root of disease processes which manifest themselves clinically in later life, and they can be prevented, or, when established, they can (if not too far advanced or complicated by superimposed infection) be rectified, by correcting defects in the composition and balance of the dietary. It is slowly being realized also that not only is the bony framework of the body affected adversely by faulty food, but the tissues generally; that the functional efficiency of all cells, the maintenance and harmonious regulation of chemical processes in the tissues, the composition of the blood and body fluids, and the capacity of the organism to resist many infectious agencies, are all dependent, in great measure, on the quality of the food and on the balance between various constituents of it. Accordingly, the idea of 'deficiency disease' has now a wider significance, and soon it will have served its purpose and given place to another—namely, that of disease associated with faulty nutrition of any kind in which maladies affecting every sys-

ACCURACY and PURITY

—the DOMINANT FACTORS in
SAFEGUARDING the HIGH QUALITY of our
AMPOULES & LABORATORY REAGENTS

LANE LABORATORIES, Inc.

WRITE FOR PRICE LIST COLORADO SPRINGS, COLO.

M. REDEKER
1675 S. Clarkson

J. SIKKENS
1677 S. Clarkson

The Denver Forestry and Landscape Co.

TREE AND BUSH PLANTING, TRIMMING, SPRAYING
AND LAWN WORK

Phone SOuth 1929 Denver, Colorado

(a) Ordinary milks form a hard curd often regurgitated or eliminated.



(b) Soft-curd milk, being very tender, is easily digested and assimilated.

STOMACH CURDS

SOFT-CURD MILK
IS GENUINE "SPECIAL BABY MILK"

And will help solve some of the problems confronting you in establishing the diet of DELICATE INFANTS

Natural whole soft-curd (Holstein) perfectly Pasteurized milk from healthy isolated cows individually tested for their ability to give milk which forms a very soft easily digested curd produced in accordance with methods developed and instructions given by Dr. R. L. Hill, human nutritionist, U. S. Department of Agriculture. Endorsed by the Medical profession and dieticians for feeding infants, invalids, convalescents and cases of weakened digestion where milk is prescribed.

Upon request, descriptive literature and a generous sample of our soft-curd milk will promptly be sent to any member of The Colorado State Medical Society.

THE LEAGUE DAIRY

933 BANNOCK ST. KEystone 3297



Floors cost so *much*

A few cents spent replacing defective casters with Colsons means dollars saved in repairing floors and replacing floor coverings. The Colson *quiet* Caster is easy to operate, saves floors, and gives trouble-free service.

There is a Colson caster for every item of movable equipment in your institution.

BACTERIOLOGICAL DEPARTMENT

THE DENVER FIRE CLAY COMPANY

DENVER DFC COLO. U.S.A.

BRANCHES AT SALT LAKE CITY, EL PASO, AND NEW YORK

Exclusive distributors for: Colson trucks, stretchers, wheel chairs, food conveyors, inhalators, and casters.

tem of the body—respiratory, digestive, urinary, endocrine, and nervous—will have a place.

"This knowledge has, for the most part, been gained by experiments on the lower animals, and the time is now ripe for controlled investigations in the field which will correct, supplement, and confirm those of the laboratory. Such an investigation is that recorded in the report by Drs. J. B. Orr and J. L. Gilks, recently issued by the Medical Research Council. The report deals with the physique and health of two African tribes, living side by side under similar climatic and hygienic conditions. The diet of the one (the Akikuya) consisted mainly of cereals, being very rich in carbohydrates and deficient in animal protein, fats, calcium, and vitamins A and D—defects commonly conjoined in certain native dietaries in India. That of the other (the Masai) consisted mainly of meat, milk, and raw blood—a diet too rich in protein and too poor in carbohydrates and fresh vegetable foods. The members of the former tribe were, in general, of poor physique, and abnormalities of bone, dental defects, spongy gums, anemia, yaws, malaria, bronchitis, pneumonia, phthisis, rheumatism, helminthiasis, and tropical ulcer were of common occurrence among them. Those of the latter tribe were of much better physique and were significantly less affected by most of the ailments mentioned; but they suffered more from constipation and arthritis than did the former tribe. Further, the dietary of the young children, the girls and women of the Akikuya, was better balanced than that of the older boys and men, and this appeared to be clearly reflected in differences in physique and health. Generally speaking, physique and health were better in the young children, girls, and women of this tribe than in the older boys and men. This experience points in the same direction as a recently recorded observation in albino rats (British Medical Journal, June 6th); and it is difficult to resist the conclusion that there was a definite relation between the diet and disease-incidence of the two human communities.

The
C. C. Gill Engraving Co.
506 Barclay Block Tel. MAin 3046
Denver, Colo.

Engravers of
Correct stationery for the Medical Profession
Professional Cards
Letter Heads and Envelope
Opening Announcements
Removal Notices



Also high-class raised-letter printing of above items.

MANUFACTURERS OF STEEL ENGRAVED GREETING CARDS
Member, National Engraved Stationery Manufacturers' Association

ARTHUR L. BALDWIN
Certified Public Accountant

TAX COUNSELOR

Fontius Building, Denver TA. 1444

THE MUCKLE X-RAY COMPANY

We wish to extend our sincere thanks to our many loyal supporters who made it possible for us to enjoy a very successful 1931, despite adverse business conditions.

Representatives of
THE BURDICK CORP. STANDARD X-RAY CO.
MCINTOSH ELECTRICAL CO. AURORA X-RAY CO.
BUCK FILMS AND SUPPLIES
PHYSICAL THERAPY AND X-RAY APPARATUS AND SUPPLIES

1632 Court Place Denver, Colo.



The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

WINDSOR-MEADOW GOLD

MAin 5131

"In addition to their clinical observations the authors of the report have brought forward experimental data which lend support to the suggestion that deficiencies in the diet, abnormal composition of the blood, and reduced susceptibility to certain diseases which have been noted in the Akikuya tribe, may be correlated. Of particular interest in these respects are their findings relating to calcium deficiency. Tropical ulcer was found to be associated with high phosphorus and low calcium content of the blood in ulcer cases.

"The importance of investigations of this kind at the present stage of evolution of knowledge concerning nutrition can scarcely be overestimated. They have a great interest in relation both to general scientific questions of nutrition and to particular problems presented by the native races inhabiting British colonies in the Tropics; and the information obtained from them is calculated to haste the improvement of the physical condition of the native and to increase his importance as an economic factor. The close relationship between diet and the physical efficiency and health of the people of India and its economic importance to that country have been emphasized from time to time during the last few years in India; and evidence to that effect has been given before two royal commissions in India—that on agriculture (1926) and that on labor (1929). Experience in India is in general agreement with the conclusions arrived at by the authors of this valuable report.

"The report is one which has not only a great interest for medical men and administrators in the tropics, but the findings therein have an interest also for those nearer home."—(British Medical Journal, June 27, 1931.)

Suggestions for Cancer Control

The following interesting list of suggestions was submitted by Dr. A. M. Stimson, medical director of the United States Public Health Service, Washington, D. C., and was of such interest that the directors of the American Society for the Control of Cancer published it in their Bulletin. Dr. Stimson's

Announcing

The Newest Achievement
in BIFOCAL LENSES

The SOFT-LITE NOKROME "D"

For the first time since the invention of the bifocal, there is now available a color free, corrected curve, glare filtering bifocal—the SOFT-LITE NOKROME "D."

This combines the advantages of the Orthogon "D" bifocal with the added comfort of Soft-Lite ophthalmic glass. Specifically you now can prescribe an invisible, orthogon, sharp clear vision from edge to edge bifocal, lens entirely free from color, together with neutral Soft-Lite absorption.

The Riggs Optical Company takes pleasure in having its representatives show this new lens to you. It is always the Riggs endeavor to present for your use the best quality optical products available and now the Soft-Lite "N-D" takes its place in our catalogue.

YOUR RIGGS REPRESENTATIVE WILL SHOW YOU

RIGGS OPTICAL CO.

There is a branch conveniently near you to serve you with quality optical products.

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

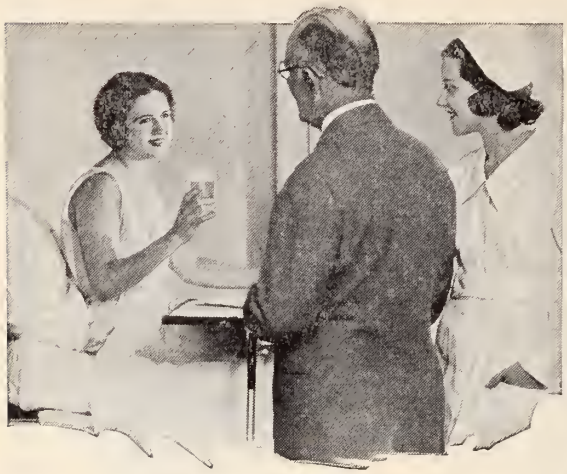
Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

"WHAT A PLEASANT WAY TO GET BACK MY STRENGTH, DOCTOR"



Extra nourishment

without extra burden on the digestion

DOCTORS often say that, in convalescence, one of the greatest problems is nutrition. Yet it is as frequently necessary to persuade the patient as it is to fight the condition.

High nutritive value, united with quick digestibility and assimilation, at once suggests milk. But many patients dislike milk. Even those who detest plain milk, or who have no appetite, yield to the delicious chocolate flavor of Cocomalt.

Far more important, however, Cocomalt actually adds 70% to the nutritive value of every glass or cup of milk. For Cocomalt is a scientifically balanced combination of milk proteins, milk minerals, cocoa, eggs, barley malt and sugar.

It is for these cogent reasons that physicians are increasingly recommending Cocomalt in convalescence, in general debility, for expectant and nursing mothers, and for growing children.

Cocomalt is sold in both grocery and drug stores in ½ lb., 1 lb. and 5 lb. cans. In powder form, ready for instant mixing with milk.

Free to Physicians

We should be glad to send you a trial can of Cocomalt for testing. Simply use coupon.

Cocomalt

DELICIOUS HOT OR COLD



ADDS 70% MORE NOURISHMENT TO MILK

R. B. DAVIS CO., Dept. 43B Hoboken, N. J.
Please send me, without charge, a trial can of Cocomalt.

Name.....

Address.....

City..... *State*.....

suggestions involved his views as to activities which the Society might undertake. Several of them are already being carried on and others or very similar activities will undoubtedly be undertaken in the future. Dr. Stimson's suggestions are seven in number as follows:

(1) Attempt to secure better instruction in cancer in the medical schools. Possibly a minimum course in cancer might be worked up by the association and submitted to the colleges for adoption.

(2) To stimulate the above, approach the State Board of Medical Examiners with the proposition that they include questions on cancer in all of their examinations. These could be included in the examinations in the subjects of Pathology, Practice of Medicine, and Surgery.

(3) Attempt to secure the recognition by State Health Boards and their officers of the fact that cancer has public health aspects, and that something can and should be done by official health agencies. The experience of Massachusetts should be brought to their attention and a similar plan, improved if possible, recommended for their adoption.

(4) Attempt by all means to secure the establishment of adequate institutions for the treatment of cancer properly manned by experts and equipped with apparatus. The first objective in this program might well be to have at least one such institution for each state.

(5) Make use of the Public Health Service to the full extent of its possibilities. Through its publications it can materially assist in the dissemination of approved information which the Society wishes to put across. Opportunities can be afforded for representatives of the Society to meet the assembled state health officials at the annual conference, as Dr. Ewing did last year.

The National Institute of Health of the Public Health Service is empowered to accept donations for establishing fellowships anywhere in the world. These could be used for the study of cancer and in this way for helping to build up the large expert personnel which will be needed.

(6) Since research will play a great part

When impartial and dependable advice is required in connection with any insurance policy or problem,

See

Max S. Schayer
Insurance Counselor

535 EMPIRE BLDG

TAbor 5563 KEystone 6414

THE MEDICAL PROFESSION
IS URGED TO INVESTIGATE

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources
We Insure Only Ethical Practitioners

David Jacobs, Manager
C. B. Tylor, Assistant Manager

316 Cooper Bldg. Denver, Colorado

UNITED STATES FIDELITY AND GUARANTY COMPANY
BALTIMORE, MARYLAND



Nature Made It!

ORIGINAL MANITOU Sparkling Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

Our New Service Department

Dear Reader:

Colorado Medicine together with the Co-operative Medical Advertising Bureau (a department of the American Medical Association) of Chicago have established a Service Department to answer your inquiries about pharmaceuticals, surgical instruments and other manufactured products such as equipment, supplies, etc., which you may need for your office, home, hospital, sanitarium, or automobile.

We invite and urge you to use this service. It is absolutely free and entails no obligation.

Between the offices of Colorado Medicine and the Co-operative Bureau we are equipped with catalogs and price lists of all manufacturers, and can supply the information you desire by return mail.

Whenever possible, such products are advertised in our pages. But perhaps you want a certain instrument or other product which is not advertised, and you do not know how or where to secure it. Colorado Medicine will give you the information.

Our address is 658 Metropolitan Building, Denver. We want to serve you.

COLORADO MEDICINE.

COLVIN BROTHERS
MEDICAL BOOKS
Ph. MA. 3866. 221 Republic Bldg., Denver

NEW BOOKS:
Marriott—Infant Feeding
Ballenger—Ear Nose and Throat
Buckstein—Peptic Ulcer X-Ray
Crossen—Diseases of Women
Sante—Chest X-Ray



PRINTING
in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

in determining the details of all that has gone before, the policy already adopted, of keeping in touch with research in cancer should be continued. Since the new high-voltage x-ray tube may have great possibilities the Society should have a technical representative whose duty it would be to keep fully informed on all new developments along that line.

(7) The efforts which have been made in the direction of establishing a central clearing house and museum for cancer specimens are admirable, but should be greatly extended and enlarged. It would seem that the Public Health Service should be in a position to take part in this work. Care should be taken in this development to prevent one-sidedness and the adoption of any not generally accepted system of diagnosis or classification.

Clemens Pirquet, M. D.

The tragic death of Clemens Pirquet, Professor of Pediatrics in the University of Vienna, removed one of the most notable figures of the medical profession in our day.

Clemens Pirquet was born in Vienna in 1874 and he died in his native city, leaving behind him as a memorial of his tireless activity in the cause of children, the Children's Hospital and Clinic attached to the University of Vienna, in the development of which he played such a prominent part. He obtained his degree in 1900 and in 1908 he became professor of pediatrics at the Johns Hopkins University at Baltimore. Two years later he returned to Europe, where his work and his accomplishments brought his name to the attention of the world.

After the war he co-operated with various agencies which sought to help Austrian children and, with an amazing administrative ability and grasp of detail, combined with an immense knowledge of the science of nutrition, he was able to perfect a most efficient organization for the distribution of money and food.

The cutaneous tuberculin reaction, which bears his name, is one of Pirquet's contributions to medical science, although it rep-

TELEPHONE KEYSTONE 8428

QUALITY

F. W. Berbert BERBERT *Julius Berbert*

FIRST

The latest patterns of surgical instruments always in stock.

The most modern manufacturing plant in connection, for special work and repairs of all instruments.

ORTHOPAEDIC APPLIANCES

Elastic Stockings Trusses
Abdominal Supporters

GEO. BERBERT & SONS

228 16th St., Opposite Metropolitan Bldg.

MERCUROCHROME

220 SOLUBLE

in

OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning *Inc.*

Baltimore, Md.

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

FURS

REPAIRING :: REMODELING

Fur Garments Made to Order

Large Selection of Silver Fox Scarfs

Andre De Vajda

FURRIER

1451 COURT PLACE

Phone MAin 2792

Denver, Colorado

"STORM" The New "Type N" Storm

SUPPORTER



"Type N"

With long laced back and low extension upon hips; The reinforcing band attached in front at median line, also fastened in back. Hose supporters instead of thigh straps.

TAKES PLACE OF CORSETS

Gives perfect uplift and is worn with comfort and satisfaction. Many variations of the "Type N" Belt provide support in Ptosis, Hernia, Obesity. Pregnancy, Sacroiliac Strain, etc.

Each Belt Made to Order
Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia, Pa.

resents a very small part of his scientific labors. His work on the nutrition of children by the measurement of the weight and sitting height, the mathematical formulae, devised to express an "index of nutrition" and the correlation of these with diet requirements, as illustrated by the "nem" system, constitute a most important contribution to our knowledge of nutrition. His "Pelidisi" system for estimating and recording the state of nutrition of children by observation of the skin, muscle tone, etc., forms a basis which has been copied in many other parts of the world.

Pirquet in his day exerted a great influence on pediatrists and his stimulating presence and gracious manner will now be sadly missing from the Vienna school. The children of the world have lost a great friend, the medical profession has lost a great leader and the Austrian nation a cultured nobleman who loved his people dearly and served them well.

Defense Mechanisms

There is a current rumor abroad that an economic depression has enveloped us like a cloud. The rumor has descended upon us with a fog of gloom. Any facts that really bear upon the question have long since been obscured by the pall which the rumor itself has caused. But there have been depressions before, and no one has yet been able to observe that either depressions, oppressions, repressions, or expressions have ever modified in the slightest degree the fundamental traits of human nature.

Your patient of two years ago has become our debtor of today. He is the same man. He honestly and earnestly believes that he intends to pay your bill. He also believes with equal earnestness that he has lost his job and his money because of the cruel hand of fate. He does not attempt to deceive you and himself as well.

Less than 3 per cent of the population has lost its income as a result of the depression. The remaining 30 to 50 odd per cent who have explained to you so clearly what the depression has done to them are only sup-

Announcing

NOTICE of removal from 737 E. Colfax to 44 S. Broadway, where we have purchased our own building and are now better equipped than ever before to render Corrective Foot Service. We co-operate with the medical profession through our Chiropodist and experienced shoe fitters from a practopedic standpoint. We believe we can eliminate the larger percentage of your foot troubles as we are improving our Corrective shoes all the time and are prepared to fit each and every member of your family, with normal or abnormal feet, with the kind of a shoe or slipper he should wear, at a price you can afford to pay. Our best grades run from $8.50 *to* $12.50 *in all sizes, large or small, narrow or wide, that will fit any normal foot.*

Casts made for abnormal feet and special lasts made on application. All examinations free. X-Ray service.

CORRECTIVE FOOT FITTERS

SPruce 5276 44 SO. BROADWAY

DENVER, COLORADO

SOLUTION LIVER EXTRACT

PARENTERAL

THE LEDERLE LABORATORIES are now prepared to supply a solution of liver extract containing the fraction G of Cohn, suitable for intramuscular or intravenous use in the treatment of pernicious anemia.

Solution Liver Extract (*Lederle*) for parenteral use may be employed in the treatment of all cases of pernicious anemia, but is especially indicated for those critically ill and also for the treatment of those cases which have not favorably responded to intensive oral dosage of liver or liver extract.

Hospital work to date indicates that the injection daily for three or four successive days of Solution Liver Extract (*Lederle*) will be followed by a more rapid increase in the red cell count and hemoglobin content than has heretofore been obtained by other methods of liver therapy. The maintenance dose must be determined for each case; however, there is evidence that the injection of one ampule of Solution Liver Extract (*Lederle*) per week may be sufficient.

ADVANTAGES OF PARENTERAL ADMINISTRATION OF SOLUTION LIVER EXTRACT *(LEDERLE)*

1. Rapid Response.
2. Certain Dosage.
3. Treatment of cases refractory to oral administration of liver or liver extract.
4. Ease of administration to critically ill patients.
5. Possible beneficial results in nervous involvements.
6. Economy

PACKAGES—SOLUTION LIVER EXTRACT (*Lederle*) for Parenteral Use is supplied in boxes of three ampules, each ampule containing the material obtained from 100 grams of liver.

Literature upon request

Distributed by

HEALY & OWENS

1400 Larimer Denver, Colorado

LEDERLE LABORATORIES, INC.

NEW YORK

Charles Hair Stores,

Inc.

MANUFACTURERS OF HIGH CLASS HAIR GOODS FOR LADIES AND GENTLEMEN



Latest models in Toupes and Wigs

All branches of beauty service.

410 SIXTEENTH ST., DENVER

KEystone 8814

plying themselves and you with a good excuse for bad behavior. They cannot pay their bills—they are of a sort which always seizes upon the nearest straw.

They confer no favors upon themselves by this deceit which they practice, for their responsibilities follow them like shadows, nor do you confer any kindness by aiding in escaping from them. These debtors have long since explained away all responsibility for the wrongs of the cruel providence, and it is only through the introduction of the utmost psychological pressure on the part of others that they may again be brought to an honest recognition of the facts, and a sincere attempt to face them.

These debtors are, in a sense, prisoners of their own shiftlessness—good people who have gone down in the struggle. They do not need to be released from bondage by indefinite extension of credit, but rather, they need to be encouraged and driven to stand upon their own feet and free themselves.—Bulletin of Pierce County Medical Society.

WHAT ADVERTISERS SAY

In these days when many firms must of necessity trim advertising appropriations and scan carefully the results obtained from each medium, it is especially interesting and gratifying to receive a number of letters from Colorado Medicine advertisers indicating their complete satisfaction with the response through this Journal.

That readers may know the appreciation of these firms, and that other firms not now using Colorado Medicine may realize the value of the Journal as an advertising medium, a few representative letters will be reproduced in these columns. Two of those received within the last thirty days are presented here.

—EDITOR.

"Colorado Medicine,
"628 Metropolitan Bldg.,
"Denver, Colo.

"Gentlemen:

"My advertising contract of one-quarter page per month for one year expires this month. Will you kindly renew the contract for another year and make it for a half page instead of the quarter page used each month last year?

"We have used a large number of advertising mediums but find Colorado Medicine most satisfactory and profitable. We believe we are now supplying the shoe requirements of more Colorado and Wyoming physicians than any establish-

• NURSES •

Competent nurses immediately furnished for any point in the Rocky Mountain States for institutions or private cases. Wire or phone your requirements.

WEST SIDE
NURSES REGISTRY

KEystone 0022
1128 Speer Boulevard, Denver
Clara Whitmore, Mgr.

THE MOUNTAIN OPTICAL COMPANY DENVER

MOUNTAIN OPTICAL COMPANY

Not the Largest Manufacturers
but More Careful Than Most

508 EIGHTEENTH ST. DENVER, COLO.

MIRACLE

A Perfect Cleansing Compound

RECOMMENDED AS THE IDEAL CLEANSER FOR HOSPITALS, SANITARIUMS AND INSTITUTIONS. IT DISINFECTS AS IT CLEANS. POWERFUL, YET NON-INJURIOUS. FOR WALLS, FLOORS, METALS, FABRICS, DISHES, LABORATORIES AND EVERY POSSIBLE CLEANSING PURPOSE WHERE GREASE, DIRT OR GERMS ABOUND.

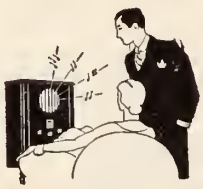
Liberal Trial Sample Packages Will Be Sent Gratis to Any Institution or Doctor Upon Request.

MIRACLE PRODUCTS AND MFG. CO.

1255 SOUTH PEARL ST.
PHONE SOuth 4082 DENVER, COLO.

Aboard the ARISTOCRAT

Luxury!



Radio Reception

In addition, the Lounge Car offers the comforts of detached chairs, inviting divans, observation platform enclosed in glass, writing desk, card tables, a library of current periodicals, late newspapers, soda fountain and a buffet serving soft drinks, sandwiches, coffee, smokers' supplies.

The Aristocrat
(NO EXTRA FARE)

Lv. Denver . . 4:00 p. m.
Ar. Omaha . . 6:30 a. m.
Ar. Chicago . . 7:45 p. m.



Burlington Route

RESERVATIONS

901 Seventeenth St. Phone Keystone 1123
S. R. Drury, General Agent
F. W. Johnson, Ass't General Agent
Denver

ment in either state, and for this we give Colorado Medicine full credit.

"H. F. BEEMAN, Mgr.,
"Corrective Foot Fitters."

The Corrective Foot Fitters, formerly at 735 East Colfax Avenue, Denver, had to move to larger quarters and have purchased the store property at 44 South Broadway, Denver. This is an unusual instance of growth during a year of generally poor commercial reports.

In a letter increasing his one-eighth page annual contract to one-quarter page, William Jones wrote the following paragraph:

"Colorado Medicine is an outstanding publication and its advertising space should be valuable to anyone who wishes to do business with the medical profession. I consider my space in the journal a very good investment."

William Jones, of 608 Fourteenth Street, Denver, conducts one of the largest establishments in the Rocky Mountain region for the manufacture of orthopedic appliances.

IMMATERIA MEDICA

"Mistuh Johnson, I has discovered I can get yo' yo' divorce on de grounds dat yo' marriage ain't legal, on account of her father, he had no license to carry a gun."

* * *

You hit your husband with a chair?
Pray tell me why you did it, Mabel.
"I did it" sighed the lady fair,
"Because I could not lift the table."

* * *

"Doctor, can't something be done about my husband talking in his sleep? It's all so indistinct."

* * *

Teacher: "Can anyone give me an example of a commercial appliance used in the Bible?"

Willie: "Yes Ma'am. The loose leaf system used in the garden of Eden."

* * *

He: "I dreamt of you last night."

She (coldly): "Really?"

He: "Yes; then I woke up, shut the window and put an extra blanket on the bed."

* * *

The best ten years of any woman's life are from twenty-eight to thirty.

* * *

"Am dat you, Liza?"
"Yassuh."
"Am you gwine t' marry me?"
"Co'se Ah is. Who's this talkin'?"

* * *

Newspaper reporter at interview: "I understand, sir, that you began life as a poor bricklayer."

Famous Contractor: "There are two bad mistakes in that sentence. I began life in the obstetrical ward at St. Luke's; and there is no such thing as a poor bricklayer."

* * *

Doctor: "How did you get those bruises on your shins, playing hockey?"

Patient: "No, I forgot to answer my wife's informatory double."

* * *

Surgeon: "Your doctor was right; you most certainly have acute appendicitis."

Flapper: "Oh, Doctor, you're flattering me."

Chicago Institute of Surgery

Inc.

J. L. Spivack, M.D., Director

2040 Lincoln Ave. Chicago, Ill.

OFFERS POST-GRADUATE WORK:

1—Surgical Technique — Two weeks' course on dogs and cadavers with a review of the necessary Surgical Anatomy. The student performs the operations himself under strict supervision of competent instructors.

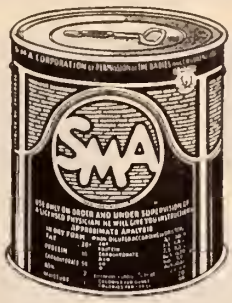
2—General Surgery—A three months' course consisting of: (a) Surgical Anatomy; (b) Surgical Technique on cadavers and dogs; (c) Clinical demonstrations in different hospitals; (d) Actual assistanceship (as 1st surgical assistant) in various hospitals.

3—Special Courses—
Gynecology; Neuro-Surgery; Cystoscopy

Urology; Ear, Nose and Throat; Bronchoscopy; Regional and Local Anesthesia

Orthopedics; Thoracic Surgery; Esophagoscopy

For Descriptive Literature, terms, etc., Address the Director



Results . . . *more simply - more quickly*

Explains the Ever Increasing Use of S. M. A. by Physicians

1—Resembles **Breast Milk** both Physically and Chemically.
2—Only Fresh Milk from Tuberculin Tested Cows is Used as a Basis for the Production of S. M. A.
3—No Modification Necessary for Normal Full Term Infants.
4—Simple for the Mother to Prepare.
5—Prevents Rickets and Spasmophilia.
6—Results More Simply and More Quickly.

? SAMPLES ?

S.M.A. CORPORATION
CLEVELAND, OHIO

An Open Letter to Doctors

YOUR PUBLISHER has suggested to us the mutual advantage of the cooperation of our school with the members of your fraternity; and so I am using this space to express our desire to render a service through our Position Department to doctors in the matter of recommending reliable and trained office assistants.

The average doctor is so busy that he is likely to neglect his office work, particularly collections. We frankly believe it is false economy not to employ the right office assistant; one who can meet the public in the right way, remember and record appointments, take care of correspondence, and make collections when collections should be made—promptly.

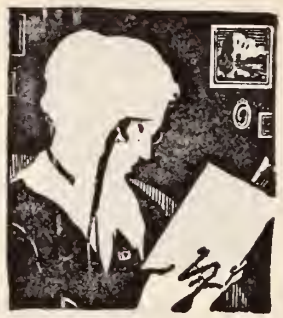
Doctors are invited to place such matters in the hands of our Employment Secretary, Mrs. Fredericke Broadhurst, KEystone 0822, Room 1, 1410 Glenarm Street. All applications will be received in confidence and recommendations made with great care.

Request. May we ask when inquiry is made about a good office training school that you remember that the Barnes School was selected, after careful investigation, as the best in its field in this territory.

BARNES COMMERCIAL SCHOOL

1410 GLENARM ST., DENVER, COLORADO

Member of National Association of Accredited Commercial Schools



PHOTOGRAPHS

The Best at Reasonable Prices

Ph. KEystone 4450 for Appointment

La Fayette Fults

Studios

522 Tabor Theatre Bldg.

Denver

J. E. BREUKLANDER
Phone SOuth 6564-M

GEORGE DITTMER
Phone YOrk 9284-W

Colorado Artificial Limb Company, *Inc.*

SUITE 49 GOOD BLOCK

(Take Elevator)

Telephone MAin 2866

1557 Larimer Street, Denver, Colo.

It was raining heavily as Dr. Jones left the building under the shelter of an umbrella. Dr. Smith, hoping to share the umbrella as far as the public garage, hurried after him.

"Hey, Jones," he cried, "Where are you going with that umbrella?"

But Dr. Jones had already dropped the umbrella and fled.

* * *

Extract from a letter to a dead-beat patient:

"My stenographer, being a lady, cannot transcribe what I think of you. I, being a gentleman, cannot dictate it; but you, being neither, will undoubtedly understand what I mean."

* * *

It is said that there are few marriages in Scotland now, since they have heard of free love.

* * *

The lawyer tried to confuse the doctor who was testifying as an expert.

"I tell you I don't care what you think; I only want to hear you talk about what you KNOW." And he pounded his desk.

"Then I might as well get off the stand," the doctor said. "I personally cannot talk without thinking. I am not a lawyer."

* * *

Noah was all right, except that he didn't drown those two Pekingese.

* * *

Gleaned from the classified advertisements of a Chicago newspaper: "Large high-grade cemetery has opening for high-grade man of executive ability. Permanent and very attractive proposition. Inquire ——."

* * *

Montgomery Roebuck Salesman: "I can sell you this bedroom suite for half the catalogue price."

Bride: "And just what is the price of the catalogue?"

* * *

Gentleman of the old school: "Madam would you mind if I smoke?"

Modern Hostess: "Hell, no! I don't give a damn if you burst out in flames! Gimme a light!"

* * *

Two small boys flattened their noses on the barber shop window while the barber was singeing a customer's hair.

"Hully Gee, Jimmie," whispered one, "he's looking fer 'em with a light."

* * *

Ranger, at National Park Gateway: "Let me see your license, please."

Touring M.D.: "Medical, alcohol, narcotic, car, driver's, dog-tax, marriage, fishing, hunting, campfire, or what have you? Mary, open the special license trunk."

* * *

Girl: "I dreamed I was autoing last night."

He: "Tell me about it."

Girl: "I forgot the dream, but when I woke up I was walking in my sleep."

PHYSICIANS' EXCHANGE

Salaried appointments for Class A physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoes National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member the Chicago Association of Commerce.

THIS WINTER

DOCTOR SAYS—"KEEP FIT!"

YOU SAY—"HOW?"

WE SAY—"RIDE HORSEBACK!"

On Our 6000-Acre Ranch—No Slippery Streets or Traffic

PRATT RECREATION Inc. RANCH

Out East Colfax—See Sign 7 Miles East of Fitzsimons Hospital; Turn 1 Mile South

PHONE AURORA 347-R3

Thrill your holiday guests with an old fashioned bob-sleighing party—Jingle Bells and All

Ski-Joring Polo and Golf Course

Colorado State Medical Society Library

and

Medical Society City and County of Denver Library

COMPRISE JOINTLY

Total number of volumes.....23,375
Total number of portraits 322
Number of periodicals received in 1929:
American, 142 Foreign, 86 Total, 228

SERVICE TO ALL MEMBERS OF THE COLORADO STATE MEDICAL SOCIETY

1. *Loans by Title:* Upon request, any book or journal will be loaned for one week.
2. *Reference Service:*
(a) Upon request, literature on any stated subject will be found and forwarded.
(b) As received, current journals will be searched for articles on a stated subject and appropriate issues forwarded to those members requesting this service.
3. *Journal Service:* Two hundred and twenty-eight medical journals are received regularly. ANY MEMBER OF THE STATE MEDICAL SOCIETY may select a journal or a number of journals which he would like to receive regularly, and these journals will be loaned for one week.

BORROWERS PAY ONLY SHIPPING CHARGES.

"WHAT CAN WE DO FOR YOU?"

ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company ---- 14
American Ambulance Company ---- 11
American College of Physicians ---- Cover 3
American Medical and Dental Association ---- 7
Baldwin, Arthur L. ---- 31
Barnes Commercial School ---- 43
Battle Creek Food Company ---- 20
Berbert, George & Sons ---- 37
Boulder-Colorado Sanitarium ---- 25
Bradley Realty Investment Company ---- 9
Brown, Everette R. ---- 28
Carlson-Frink & Company ---- 5
Carpenter & Hibbard Optical Company ---- 6
Charles Hair Store ---- 40
Chicago, Burlington & Quincy R. R. ---- 42
Chicago Institute of Surgery ---- 43
Children's Hospital ---- 24
Cocks-Clark Engraving Company ---- 36
Cocomalt ---- 34
Colorado Artificial Limb Company ---- 44
Colorado Photo Company ---- 14
Colorado Springs Psychopathic Hospital ---- 22
Colvin Brothers ---- 36
Conway's Floral Shop ---- 15
Corrective Foot Fitters ---- 39
Cragmor Sanitarium ---- 26
Cullen-Thompson ---- 41
Cutter Laboratory ---- Cover 4
Daniel-Smith Engraving Company ---- 27
Denver Fire Clay ---- 30
Denver Forestry & Landscape Company ---- 29
Denver Lace Cleaning Company ---- 19
Denver School of Swedish Massage ---- 19
De Vajda, Andre ---- 38
Durbin Surgical Supply Company ---- 21
Garden Farm Dairy ---- 33
Gill Engraving Company ---- 31
Glockner Sanatorium ---- 24
Gold Coin Creamery ---- 6
Golden Plunge ---- 13
Gore, Chas. T. ---- 17
Graduate Nurses Club ---- 17
Great Western Fuel & Hardware Co. ---- 18
Griffey, E. L. ---- Cover 4
Health Products Corporation ---- 2
Hynson, Westcott & Dunning ---- 37
Jones, William ---- 16
Knox Gelatine ---- 3
Lafayette-Fultz Studio ---- 44
Lane Laboratories ---- 29
League Dairy ---- 29
Lederle Laboratories ---- 40
Lilly, Eli & Company ---- 8
Loveland Hospital and Clinic ---- 22
Loxam, George ---- 18
Manitou Mineral Water Company ---- 35
Mead, Johnson & Company ---- Cover 2
Merck & Company ---- Insert between 4 and 5
Miles & Dryer Printing Company ---- 11
Miracle Products Company ---- 41
Montclair Sanitarium ---- 23
Montclair Training School ---- 15
Mountain Optical Company ---- 41
Mount Airy Sanitarium ---- Cover 1
Muckle X-Ray Company ---- 31
Newcomb Realty Company ---- 19
Nonspi Company ---- 40
Park Floral Company ---- 28
Parke, Davis & Company ---- 4
Pencol Drug Store ---- 16
Physicians and Surgeons Hospital ---- 27
Porter Sanitarium and Hospital ---- 23
Pratt Recreation Ranch ---- 45
Presbyterian Hospital ---- 25
Provident Mutual Life Insurance Co. ---- 9
Riggs Optical Company ---- 33
Roche Ambulance Service ---- 21
St. Joseph's Hospital ---- 26
Schayer, Max S. ---- 35
Seeleman-Ehret Photo Engraving Co. ---- 20
Shirley Garage ---- 28
Shirley-Savoy Hotel ---- 37
S. M. A. Corporation ---- 43
Spencer Corsets ---- 15
Storm, Katherine L., M.D. ---- 38
Squibb & Sons ---- 1
Take-Apart Shelving Company ---- 21
Taylor, Charles B. E. ---- 13
Therapeutic Bath Institute ---- 20
Trowbridge Training School ---- 18
Tulane University ---- 28
Twentieth Century Mfg. Company ---- 5
United States Fidelity & Guaranty Co. ---- 35
U. S. Multigraphers ---- 18
Western Messenger Service ---- 15
Western Newspaper Union ---- 36
West Side Nurses Registry ---- 41
Windsor Farm Dairy ---- 32
Winter-Weiss Company ---- 11
Woodcroft Hospital ---- 27

Sixteenth Annual Clinical Session

AMERICAN COLLEGE of PHYSICIANS

APRIL 4-8, 1932

San Francisco, Calif.

OUTLINE OF SESSION

TIME	MONDAY April 4	TUESDAY April 5	WEDNESDAY April 6	THURSDAY April 7	FRIDAY April 8
9:00 A. M. to 12:00 M.	Morning free. Registration, exhibits, etc.	1st Clinical Session	2nd Clinical Session	3rd Clinical Session	4th Clinical Session
12:00 M. to 2:00 P. M.	Luncheon	Luncheon	Luncheon	Luncheon	Luncheon
2:00 P. M. to 5:30 P. M.	1st General Session	3rd General Session	5th General Session	6th General Session, Annual Business Meeting	7th General Session
5:30 P. M. to 8:00 P. M.	Dinner	Dinner	Dinner	ANNUAL BANQUET	Dinner
8:00 P. M. to 10:30 P. M.	2nd General Session	4th General Session	Convocation and Reception to New Members		"'49 Party"

A POSTGRADUATE WEEK IN INTERNAL MEDICINE AND ASSOCIATED SPECIALTIES, covering a wide range of subjects presented by outstanding men in medicine, not only from the west coast, but from all parts of the country. About half of the program will be devoted to actual clinics, laboratory demonstrations, ward walks and exhibits. In addition, there will be complete displays of medical literature, pharmaceutical products, equipment, appliances, special foods, etc.

Transportation—Railroad fares will be reduced to one and one-half times the one-way fare for the return trip. A "certificate of identification" must be secured from the Executive Secretary of the College to entitle physicians and members of their immediate families to these reduced fares.

San Francisco Headquarters—Palace Hotel, New Montgomery and Market Streets.

Post-Convention Tour—Following the San Francisco Session, a special train has been engaged for a tour of the Southwest, including the Yosemite Valley, southern California (with a two-day program of pleasure and inspection around and in Los Angeles), the Grand Canyon of Arizona, etc. Special itinerary and rates sent upon request. Los Angeles headquarters will be the Los Angeles Biltmore Hotel.

INVITATION extended to all qualified physicians. Non-members of the College will pay a nominal registration fee.

Address inquiries and requests for programs to the Executive Secretary.

S. Marx White, M. D., President
Minneapolis, Minn.

Wm. J. Kerr, M. D., General Chairman
San Francisco, Calif.

E. R. Loveland, Executive Secretary
133-135 S. 36th Street
Philadelphia, Pa.

E. L. GRIFFEY

Successor to

Robt. Gibson, Griffey and Company

Wholesale Woolen Merchants

Denver's Only Popular Priced High Class TAILOR

We Make Clothes from $30.00 to $65.00

Our $50.00 Business Suit Is a Wonder

The suits and overcoats that sell for $65.00 cannot be surpassed anywhere in Quality, Workmanship and Price.

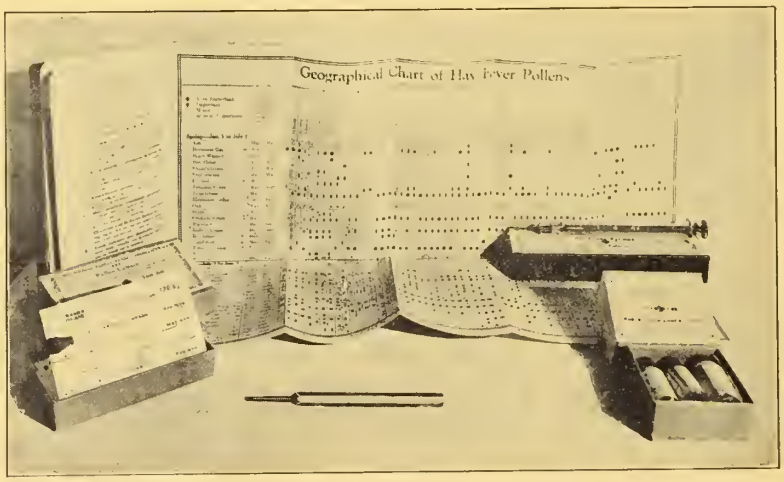
See for yourself the excellent values we have to offer you.

We Are Conveniently Located

1509 TREMONT

60,000 UNITS!

In every Cutter Hay Fever Treatment Set



60,000 is not more than enough in many cases. You would not limit yourself to 5,000 units of Diphtheria Antitoxin to treat the mildest case of diphtheria. Why be satisfied with minimum dosage in treating hay fever? Write for Cutter Geographical Pollen Chart.

LIST

Cutter Prices

60,000 unit treatment set	$9.00
5 c. c. concentrated extract, 1-10,000, 1-1000, 1-100, 1-33 1-3 dilution	5.00
Regional Test Set, Spring or Fall	1.50

The CUTTER *Laboratory*

Established 1897

BERKELEY CALIFORNIA

THE N.Y. ACADEMY OF MEDICINE
LIBRARY

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 3 MARCH, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

TABLE OF CONTENTS

Editorials
Professional Ethics 101
Take an Interest in Hygeia 101
Consistent Medical Advice 102
Patients' Control of Medical Fees 102
Radio Publicity and Health Education 103
Tulane Establishes Department of Preventive Medicine 103
Visible and Invisible Bacteria 103
Social Insurance Versus Democracy 104

Original Articles
Addison's Disease and the Hormone of the Suprarenal Cortex, C. F. Kemper and P. A. Dickman 105
Alimentary Anemia, George M. Blickensderfer 113
Ostcochondritis, N. L. Beebe 118
Amebiasis in Colorado—Its Symptomatology, A. J. Chisholm 124

Case Reports
An Atypical Case of Oculo-Glandular Tularemia, F. E. Palmer and J. S. Reifsneider 128

Public Health Notes 130
Library Notes, Book Reviews 132
Biography as Related to Medical Terminology 133

Secretarial Notes and Comment
Doctors or Bootleggers? 134
Missing Numbers of Colorado Medicine 134
Malpractice Epidemics 134
School of Medicine Annual Clinics 135
Another Risky Investment 135
Public Health Association 136
Medical Societies 136
Obituaries 138
Woman's Auxiliary 138

Wyoming Section
Editorials
The Northwest Regional Conference 140
Away With the Eye Cup 140
Original Articles
Summary of Health of Children in Midwest Grade School, Nathan H. Einhorn 141
News Notes 144

Hospital Section
Editorials ..... Ten
Original Articles
Join Your Hospital Association, Wm. S. McNary ..... Ten
Noise Control or Elimination and Prevention of Noise in the Hospital, Robert B. Witham ..... Fourteen

NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

MOUNT AIRY SANITARIUM

For the Treatment of
Nervous and Mental Illnesses

Medical Superintendent
J. P. Hilton, M.D.

1205 Clermont St., Denver
Telephone: YOrk 0849

J. E. BREUKLANDER
Phone SOuth 6564-M

GEORGE DITTMER
Phone YOrk 9284-W

Colorado Artificial Limb Company, *Inc.*

SUITE 49 GOOD BLOCK
(Take Elevator)

Telephone MAin 2866

1557 Larimer Street, Denver, Colo.



PHOTOGRAPHS
The Best at Reasonable Prices
Ph. KEystone 4450 for Appointment

La Fayette Fults Studios

522 Tabor Theatre Bldg.
Denver

BARGAIN GOLF

NOT A NEW GAME— JUST **NEW PRICES** OUR INTRODUCTORY OFFER

THINK OF IT!
An 'Annual" for $7.50
Or Week Days 25c, All Day
Or Saturday, Sunday and Holidays 35c, All Day
An 18-Hole Course and NO WAITING

You have wanted a place of seclusion to RELAX from the cares of the day—

HERE IT IS

PRATT RECREATION Inc. RANCH

Out East Colfax—See Sign 7 Miles East of Fitzsimons Hospital; Turn 1 Mile South

PHONE AURORA 347-R3

Horseback Riding Polo

P. S.: Let the Kiddies Ride Horseback While You Golf

SQUIBB *provides a complete line of*
AUTHORIZED SCARLET FEVER PRODUCTS



SQUIBB *AUTHORIZED*
SCARLET FEVER PRODUCTS

•

SCARLET FEVER STREPTOCOCCUS ANTITOXIN SQUIBB—For early treatment of scarlet fever.

SCARLET FEVER STREPTOCOCCUS ANTITOXIN SQUIBB—For Blanching test.

SCARLET FEVER STREPTOCOCCUS TOXIN SQUIBB—For Dick test.

SCARLET FEVER STREPTOCOCCUS TOXIN SQUIBB—For active immunization against Scarlet Fever.

ALL SQUIBB Scarlet Fever Products are authorized products. They are made under license from the Scarlet Fever Committee, Incorporated, which administers the Dick patents. A triple control of the Squibb Scarlet Fever products assures absolute and maximum potency. This control includes laboratory tests and clinical trials in the Squibb Laboratories, approval by the Hygienic Laboratories at Washington, D. C., and the Scarlet Fever Committee, Incorporated.

For literature, write to Professional Service Department, 745 Fifth Avenue, New York City

E·R SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

We Specialize in Cleaning Lace Curtains, Draperies, Bed Spreads, Window Shades

Linens and Fancy Linens Beautifully Finished by Hand
Wool Blankets Guaranteed Not to Shrink
Satisfaction Guaranteed

DENVER LACE CLEANING COMPANY

4755 WASHINGTON ST. PHONE KEystone 7528

We Call For and Deliver *15 per cent discount for cash and carry*

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically Limited Class Now Forming

Special classes for Nurses. Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R 3762 High St.

Elna Hoagland, Pres.



More Than Just a Mere "COMBINATION"

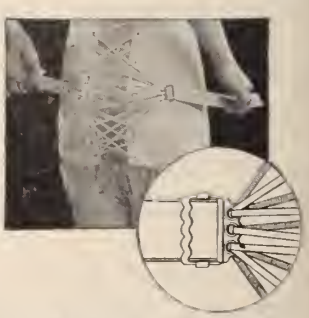
Every Camp combination has as its foundation an inner belt which is a true Camp Support, embodying the Camp Patented Adjustment that provides the maximum benefit to be derived from this type of garment.

Model No. 3160, illustrated, is recommended for post operative and general wear, slight organic displacement, control of fleshy deposits on the abdominal walls, or restoration of normal conditions following pregnancy—also for normal wear.

Only CAMP Has This Feature

The Camp Patented Adjustment is an exclusive, non-competitive feature. The continuous lace running through the adjustment straps (and not affixed to them), as well as through the garment itself, automatically balances the adjustments to fit individual conditions.

Sold in Drug and Department Stores, Surgical Section, Surgical Houses, and Corset Specialty Shops.



CAMP TRADE MARK

Physiological Supports

S. H. CAMP AND COMPANY
Manufacturers
JACKSON, MICHIGAN

CHICAGO 1056 Merchandise Mart NEW YORK 330 Fifth Avenue LONDON 252 Regent Street, W.

Write for Physician's Manual, Women's Section



IN HOSPITAL ZONE

Suitable for physicians

1778 GILPIN ST.

Cor. 18th Ave.

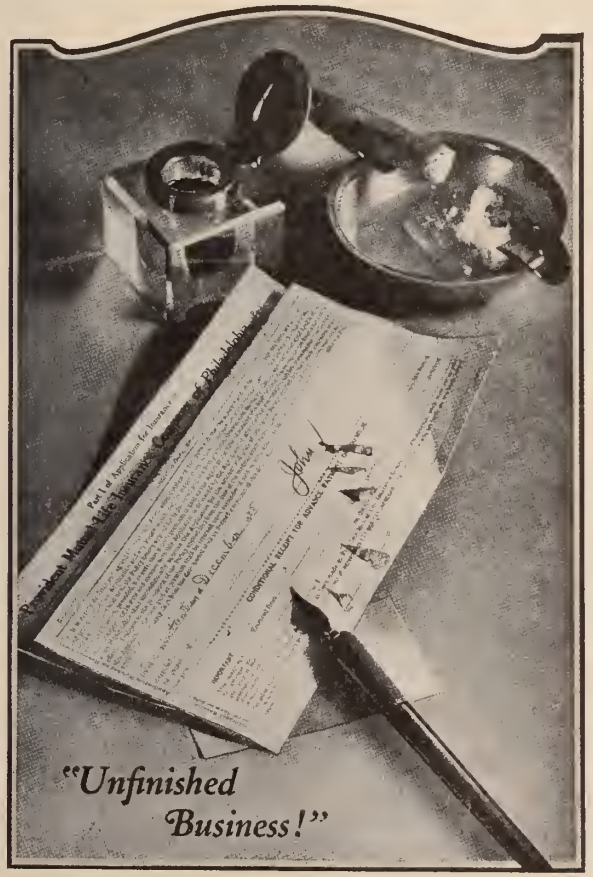
Eleven-room modern house with beautiful hardwood finish, on 3 corner lots and enough ground for future expansion, garages, etc.

The third story could be taken off and the house extended to the alley in Spanish architecture and the whole building stuccoed, and the house has other possibilities.

Many physicians are locating their offices in the residential districts, such as Dr. Robert G. Packard at 18th and Gilpin St., Dr. F. P. Gengenbach at 19th and Gilpin, Dr. Cuthbert Powell, Dr. Leonard M. Van Stone and Dr. H. J. Von Detton at 16th and Humboldt, and here is your chance to do likewise.

For full information about the property and the price and terms, see

SETH B. BRADLEY
The Bradley Realty Inv. Co.
826 DENVER NATIONAL BLDG., MA. 4318



"No man can afford to put off until tomorrow the LIFE INSURANCE he should buy today!"

Provident Mutual
Life Insurance Company of Philadelphia
Founded 1865
PENNSYLVANIA

GEO. N. QUIGLEY
General Agent
1008 Patterson Bldg.
Denver, Colo.

One of a series of messages in the *Saturday Evening Post*, the *Literary Digest* and other magazines, setting forth some of the accomplishments of Medical Science in the diagnosis, treatment, and prevention of disease.
PARKE, DAVIS & COMPANY

NEGLECT IS YOUR HEALTH'S WORST ENEMY



Are YOU Guilty?

YOU probably are! . . . Your doctor cannot seek you out and offer you his help. The ethics of his profession forbid that.

All he can do is to wait for your summons.

He is prepared, not only to help those who are actually ill, but also to prevent illness in those who are apparently well.

Why call upon him NOW? Here are reasons:

1. Millions of men aud women are well, but not so well as they might be. You may not actually be sick but at the same time you may not be enjoying buoyant health. An examination by your family doctor is the best possible way to get the utmost out of your good health possibilities.

2. Physically and psychologically, you are an *individual.* A health examinatiou will enable your doctor to learn your constitution, temperament, and tendencies. If you should become ill, this knowledge will be of great help to him. The more he knows about you the more he can help you.

3. You probably have certain weak spots in your health-armor. Your doctor can find these spots and strengthen them *before* disease attacks you.

4. Disease germs are everywhere. You can't avoid contact with them. But your doctor can take certain steps to protect you against contagious diseases.

5. You may have a number of fears about your physical health which are real to you, but which your physician may prove actually baseless. Many of us make ourselves ill by useless worry.

Neglect is your health's worst enemy. The most important step in the battle is to go to your doctor before he has to come to you.

PARKE, DAVIS & COMPANY
DETROIT, MICHIGAN
The World's Largest Makers of Pharmaceutical and Biological Products

PARÉ, confronted with a shortage of supplies at the siege of Metz, found it necessary to innovate the practice of dressing gunshot wounds *without* the use of boiling oil!

Compare the lot of those sixteenth century sufferers, before anesthesia, with that of present-day patients, who are even spared preoperative anxiety through the use of Pulvules Sodium Amytal (sodium isoamyl ethyl barbiturate). Following their use, less anesthetic is required, postoperative nausea is absent or diminished.

A related product—Tablets Amytal, in two strengths—is found practical as a hypnotic and sedative wherever tranquillity and repose are desirable.

From the painting, "Paré at the Siege of Metz"



PROGRESS THROUGH RESEARCH



FRENCHMEN said of Claude Bernard that he was "physiology itself." Magendie was his teacher, Pasteur his friend. Work on the pancreas begun by Bernard, amplified by von Mering and Minkowski, Opie, and others, culminated about seventy years later in the brilliant physiological investigations of Banting and Best and their co-workers at the University of Toronto which clarified the relation of the pancreas to diabetes mellitus and gave Insulin to the world.

Working in close co-operation with the University of Toronto authorities, the Lilly Research Laboratories produced the first Insulin commercially available in the United States.

From the painting,
"Claude Bernard and his Pupils."

PROGRESS THROUGH RESEARC

"KNOCKS-THEM-ALL-SPRAY"



Quick and certain death for Germs, Moths, Roaches, Bed Bugs, Lice, Ticks, Fleas, Mites and countless other pests. It does not stain and positively leaves no bad after-effects.

"Knocks - Them - All - Spray" has been manufactured in Denver and sold thruout the Rocky Mountain section for the past sixteen years. When used according to directions it is guaranteed to give complete satisfaction or purchase price will be promptly refunded.

Hospitals and medical institutions are invited to write for free samples in liberal quantity.

The price of $2.40 per gallon includes metal container.



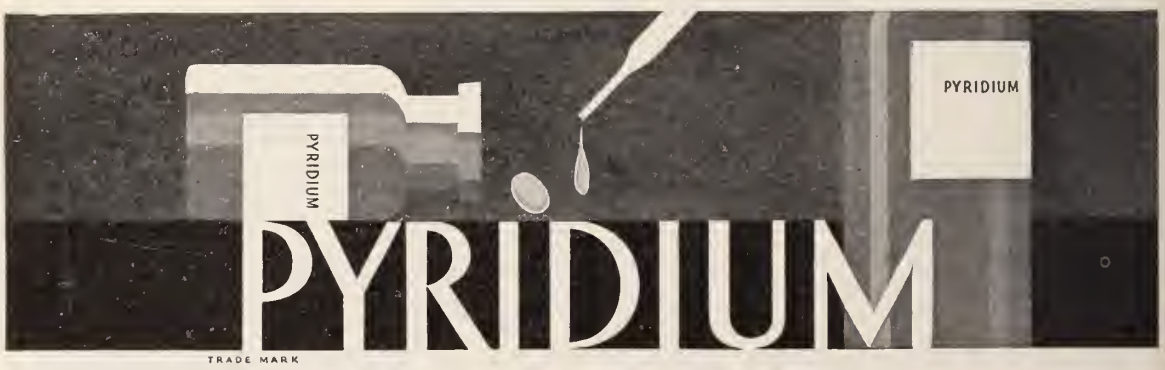
DOCTORS, in prescribing milk for baby feeding or patients on a milk diet, can feel at ease in prescribing Frink milk, a product bottled in Denver's largest and cleanest, home-owned dairy. With modern equipment and rigid sanitary rules, we are able to deliver to the home a pure and clean bottle of very high grade milk which is Nature's greatest health food.

1230 13th St. CARLSON-FRINK CO. MAin 0111

The Carpenter-Hibbard Optical Co.

1628 Welton Street

Denver, Colorado



TRADE MARK

PHENYLAZO-ALPHA-ALPHA-PYRIDINE-MONO-HYDROCHLORIDE (MANUFACTURED BY THE PYRIDIUM CORPORATION)

FOR GONORRHEA

The oral administration of Pyridium in tablet form affords a quick and convenient method of obtaining bactericidal action when treating Gonorrhea and other chronic or acute genito-urinary infections... Pyridium penetrates quickly through denuded surfaces and mucous membranes and is rapidly eliminated through the urinary tract. It is non-toxic and non-irritating in therapeutic doses... Pyridium is available in four convenient forms, as tablets, powder, solution or ointment.

WRITE FOR LITERATURE

"COUNCIL ACCEPTED"

B-6-D-5

MERCK & CO. INC.
MANUFACTURING CHEMISTS
RAHWAY, N. J.

How're Collections?

The
American Medical & Dental Association

Offers You

The Best Collection Service Available

Exclusively Professional

Our Adjusters and Collectors are trained in Collecting Professional Accounts, which assures you of Greater Collection Returns

List Those Slow Accounts Now

We Invite Comparison of Results Obtained

A Service That Is Not Duplicated

Credit Reports *Courtesy Notices*

Professional Collections

Ask to Have Our Representative Call and Explain

PUT US TO WORK ON THOSE SLOW PAYERS

Collection Charges as Low as 20 per Cent

No Collection—No Charge

Uncollectible Accounts Are Neglected Accounts

Est. 1912

The American Medical and Dental Association

Credit Men for the Medical and Dental Profession

700 CENTRAL SAVINGS BANK BLDG. PHONE TAbor 2331

DENVER, COLORADO

Merthiolate, Lilly

DISTINCTIVE FOR ITS COMBINED GERMICIDAL VALUE AND EXTREMELY LOW TOXICITY TO ANIMAL TISSUES

Potent
in the presence of organic matter

Non-toxic and non-hemolytic for red blood-cells

Non-irritating to tissue surfaces

Stainless and stable in aqueous solution

Merthiolate, Lilly, is an organic mercurial compound—sodium ethyl-mercuri thiosalicylate. It is supplied through the drug trade.

Eli Lilly and Company

Indianapolis, U. S. A.

CONTRIBUTORS TO MEDICINE
THROUGH RESEARCH AND PRODUCTION

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: W. H. Crisp, M.D., *Chairman*, C. F. Kemper, M.D., C. S. Bluemel, M.D.

VOL. 29 NUMBER 3 MARCH, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

PROFESSIONAL ETHICS

AT THE request of the Colorado State Board of Medical Examiners and with the approval of the Board of Censors of the Medical Society of the City and County of Denver and the Committee on Public Policy of the Colorado State Medical Society, the following suggestions are published editorially.

A large newspaper publishes, about once a year, a "Greater Denver" edition. This includes many pages of photographs of supposedly prominent citizens, with their names and occupations. Each person whose photograph is thus published agrees to pay a certain sum of money to the newspaper. Candidates are supposedly singled out and "invited" to permit such publicity, in the name of civic benefit, but no less than one hundred Denver physicians were importuned for the recent special edition. It is obvious that the newspaper was less solicitous of a candidate's eminence than of his willingness to pay a definite, and not inconsiderable, sum of money.

Any payment made by a professional man to secure publication of his photograph places such publication within the category of advertising. The medical and legal professions interpret this as an impropriety, even though the payment is allegedly for the sole purpose of retiring the cost of publication.

Such a captioned photograph does not constitute a professional card, and if paid for either directly or indirectly becomes a solicitation of business by advertising, hence a breach of professional ethics. An advertisement is distinguished from a news item in that the former is paid for, directly or indirectly. The amount or form of payment, or what item of cost it is supposed to cover, is immaterial.

The Denver Bar Association, through its official publication, Dicta, has reprimanded those of its members who subscribed to the recent newspaper edition, a speeial committee of the association having interpreted the code of legal ethics to show that such publication of photographs constituted unethical advertising.

The Board of Medical Examiners, the Public Policy and Publication Committees of our State Medieal Society, and the Board of Censors of the Denver Medical Society, feel that such publicity is equally contrary to medical ethics, and also feel that action corresponding to that of the Bar Association is in order in our own ranks.

It is to be hoped that drastic action in such directions will not be necessary, that, instead, each physician will be ready with a resolute "NO" when approached in the future on such publicity projects.

TAKE AN INTEREST IN HYGEIA

THE public is vaguely aware of the striking incidence of physical deficiencies. The draft for the World War, pre-school examinations, and health examinations have revealed dire facts. The people, therefore,

have been made ready to receive information about keeping themselves well. Laymen, however, are often none too discreet in choosing the source of information and wander far from the paths of scientific medicine.

The medical profession has sought and found a means of promulgating scientific information in lay terms. Thus Hygeia has become a valuable servant in one of the most important fields of medical service—that of creating an "health consciousness" among the laity. It should be accessible to the patients that it may convey important messages without encroaching upon the busy physician's time. It will dispense an understanding which, in most instances, would otherwise be impossible. The people must be made mindful of the proper qualifications of those to whom they entrust their health.

We must remember that Hygeia is our own project, is an important organ of the American Medical Association of which we are members. With the decline of the venerable family doctor, the pages of Hygeia convey the personal interest and touch now largely precluded in modern high-pressure living.

May the future find more of these valuable journals in our reception rooms and more in the homes of our patients.

CONSISTENT MEDICAL ADVICE

CONSIDERABLE public confidence is lost the medical profession through differing opinions among physicians. For example, a parent may consult three different men regarding diphtheria immunization. One may say there is no danger of diphtheria in a preschool child; another considers the procedure dangerous; a third one is honest enough to admit he is unfamiliar with its administration. Every physician hears almost daily what other doctors said and finds his opinion at odds with all of them.

With less than one-third of physicians engaged in the general practice of medicine, how may we expect complete accord relative to the health examination? None can deny its value, and all must develop an unselfish mental attitude regardless of specialization. The health examination and immunization procedures need the active endorsement of every doctor of medicine. Their cost may be made consistent with the financial situation of the patient—as all medical advice should conform, within reason, to the individual's financial capabilities.

PATIENTS' CONTROL OF MEDICAL FEES

CRITICS of prevailing methods and distribution of medical service have persisted in asserting that only the poor and the rich may avail themselves of the best medical care. Many laymen are beginning to accept this as a fact and, if called upon to vote, would risk a radical change in present methods.

On the surface and from some points of view, certain of the accusations might appear true, but careful analysis will disprove them. The wage-earner has excellent medical service at his command now as he has had in the past, and for a price within his means. All he must do in order to realize this is to consult a regular physician, explain his means, the other demands upon his pay-check, and ask for fair consideration—honesty in return for honesty. Exception must at times be made of the man who has obligated himself for luxuries beyond his means, but he would be the same in any social stratum. The majority of people are honest.

It has been said that "some people know just what is wrong with this country, and others are working." Physicians are working—many upon their former patients in charity institutions. The sick are being cared for regardless of their position in society. Perhaps this may answer a few questions relative to the high cost of medical care. These times may demonstrate how elastic that cost actually is, and that it is definitely within the patients' control.

RADIO PUBLICITY AND HEALTH EDUCATION

THE American Medical Association for some time has been broadcasting three five minute talks each week. They are influencing public opinion in favor of higher standards of medical practice.

The Iowa State Medical Society has, through its speaker Bureau, instituted a series of twelve radio lectures to be given at weekly intervals. The subjects are of pertinent interest: The Modern Doctor, The Specialist, Medical Achievements, Preventable Diseases, Cancer, Rheumatism, Venereal Diseases, Tuberculosis, Periodic Health Examination. The name of physicians preparing and delivering the talk is not announced.

Such a campaign inevitably influences medical licensure. The public is made to realize the extended requirements for modern scientific medical practice and the distinctions between the limited practitioner and the educated physician.

TULANE ESTABLISHES DEPARTMENT OF PREVENTIVE MEDICINE

TULANE University now has an annual appropriation of $25,000 allotted to the School of Medicine for the establishment of a department of preventive medicine. Through the Commonwealth Fund of New York, the University thus participates in the rural health program initiated in Mississippi. The importance of preventive medicine is emphasized in all clinical departments.

Five free scholarships have been established for undergraduate medical students, allowing $1,200 a year for four years, and with the stipulation that the scholars will practice at least three years in Mississippi. Also fifteen practicing physicians will be sent to Tulane each year for four months' graduate work. This arrangement compares with Harvard's arrangement for Massachusetts practitioners.

We trust the future will find similar advantages in our own State Medical School. Physicians may hasten such a realization by advocating endowments from philanthropic friends. The need of funds for junior and senior medical students who have insufficient means is particularly acute in our own institution.

VISIBLE AND INVISIBLE BACTERIA

OUR readers may recall a recent editorial upon the new super-power microscope developed by Dr. R. R. Rife of San Diego and Dr. Arthur I. Kendall, Head of the department of research bacteriology of Northwestern University. Dr. Kendall reports that giving germs human proteins to eat is the key to causing filtrable viruses to become visible and visible ones to vanish into a filtrable stage.

For example, after treating bits of animal protein chemically to remove decomposition products, the remainder is made into a culture medium. Blood from influenza patients implanted in this causes it to become cloudy. A few drops of this injected into the vein of a rabbit causes the development of "flu" symptoms in the animal. Transferred from this medium to media of the old type, the "germless" fluid developed colonies of small round germs. Dr. Kendall considers this a visible form of the elusive germ of influenza. On the other hand, after culturing known miscroscopically visible germs on well-known media, transplanting them onto the new medium, they become invisible. After filtering the latter through the finest porcelain filter, the visible form of the original organisms were cultivated from the filtrate on the old-type media. This process has been carried out with germs found in victims of infantile paralysis, scarlet fever, typhoid fever, and yellow fever, as well as with the common streptococcus and staphylococcus.

SOCIAL INSURANCE VERSUS DEMOCRACY

IN the last analysis, every form of apparently official pronouncement is nothing more than the expression of opinion by an individual. This statement applies to the invective against all forms of social insurance which seemingly was circulated to state medical journals over the signature of our distinguished surgical colleague, Dr. Ochsner of Chicago, with the stamp of semi-official approval by the American Medical Association.

Dr. Ochsner assures us that "all forms of social insurance are contrary to the spirit of democratic government." In this sweeping condemnation does Dr. Ochsner include compulsory insurance against industrial accidents, which is certainly one form of social insurance. If so, he is certainly tilting against the windmill. Even if Dr. Ochsner referred only to sickness and unemployment insurance, his protest is likely to be without any weight whatever, for in the large industrial communities of the world in which these types of social insurance have been established they have come to stay, and for very good reasons.

Bismarck died in 1895, but there has been no serious attempt to abolish the national health insurance which, in a wise spirit of compromise, he had created many years earlier. It is ridiculous to say that Lloyd George lost his political hide by national insurance in 1931, for no serious proposal has been made for abolition of national insurance in Great Britain, but only for correction of its abuses. France, at present probably the most conservative great power of Europe, has recently adopted important measures of social insurance.

However rich their deserts, physicians certainly occupy in an important degree a position of special privilege in the community. During severe industrial depressions their incomes may be greatly reduced, but not many of them are included among the ten million, more or less, who are said to be unemployed in this country at the present time. It is to be doubted whether Dr. Ochsner's own financial struggles are such as to give him a sufficiently sympathetic point of view toward the masses of the population who, in this industrial age, must look forward with increasing anxiety to the risks involved in sickness, unemployment, and old age. We have repeatedly been told that it becomes more and more difficult for the worker who loses his job after middle age to obtain renewed employment on a remunerative and continuous basis. Only in boom times is it possible for practically all workers to find employment. Those of us who are cognizant of investment losses and wholesale bank failures may find it difficult to believe that "individual incentive, initiative, and self-reliance" can be exclusively relied upon for adequate safeguarding of health and comfort in the individual and the family.

The average physician looks with some dislike upon any form of sickness insurance as likely to interfere with the emoluments of private practice. Nevertheless, sickness insurance conservatively planned and efficiently administered offers important further safeguards for the public health; and the medical profession as a whole may be better advised to devote its energies to guiding than to completely opposing this form of insurance where it seems imminent or inevitable. Financial depressions like the present one are great breeders of bloody revolution; and the various forms of social insurance, with all their mistakes and abuses, play a tremendously important part as insurance against social upheaval. (Submitted by Dr. William H. Crisp, in reply to the previous contributions, upon the subject of Social Insurance, of Dr. Edward H. Ochsner of Chicago.)

NOTE the fact that the state of Maine has procured medical representation upon every controlling body of institutions dealing with public health. No institution dealing with the health of the people in that state is entirely in lay hands. They have learned the wisdom and economy of competent medical advice in such administration.

(Continued on Page 32, Adv. Section)

ADDISON'S DISEASE AND THE HORMONE OF THE SUPRARENAL CORTEX*

C. F. KEMPER, M.D., and P. A. DICKMAN, M.D.
DENVER

The trend of development in modern medicine has been marked by the discovery and practical use of hormones of the ductless glands. Particularly thyroxin, insulin, and the parathyroid hormone have become standard substitutes in diseases due to hypofunction of the glands from which they are derived. Many other such internal secretions are known to exist, but their practical uses await a standard and stable commercial preparation. Curiously enough, Addison's disease, a syndrome connected with destruction and consequent hypofunction of the suprarenal glands, clearly described by Thomas Addison in 1855, has not until recently led to the well-grounded claim of discovery and isolation of the life-saving hormone. Therefore, we think it pertinent to review in outline our knowledge of the structure and function of these glands, the hormone and its use in suprarenal insufficiency.

Anatomy

The adrenal, or suprarenal, glands, first described by Eustachius in 1573[1], are two small flattened roughly triangular masses of greyish tissue lying in the retroperitoneal space, each in intimate anatomical relation to the kidney on either side. The cut surface resulting from antero-posterior section of the gland is easily divisible grossly into an inner medulla, which stains brown with chromium salts, and an outer layer, the suprarenal cortex, which does not. The cortex can in turn be indistinctly divided on microscopic examination into three concentric layers, according to arrangement of their constituent cells, into the inner zona reticulosa, the middle zona fasciculata, and the outer or peripheral zona glomerulosa.

In the evolutional scale as well as in embryological development the two main divisions of these structures have been shown to have different origins. No tissues comparable to them have been conclusively demonstrated in the bodies of invertebrate animals. In at least some of the fishes they remain as separate structures throughout life. In the human embryo, the medulla is derived from chromaffin cells lying in the sympathetic ganglia of the coeliac plexus; that is, it is ectodermal in origin[2]. The cortex, on the other hand, originates as ingrowing buds of the peritoneal mesothelium covering the genital ridge and is of mesodermal origin. Portions of the suprarenal anlage may become separated from the parent gland and form accessory suprarenals, which usually consist wholly of cortical tissue. These may be found in the region of the main gland or in the retroperitoneal space remote from it, occasionally imbedded in other organs, or they may follow the migration of the gonad to the pelvis or scrotum. They occur occasionally in man, in a small percentage of dogs and cats, and perhaps most frequently in rabbits and white rats[3,4].

The foregoing facts make it obvious that, although in man and the higher mammals the suprarenal cortex and suprarenal medulla are intimately associated anatomically, they should be considered as separate and distinct organs embryologically, structurally, and, as will be pointed out below, physiologically.

Addison's Disease

Previous to the middle of the nineteenth century little or nothing was known of these glands except their anatomy. Ideas advanced regarding their physiology, that they serve to hold up the stomach, that they strengthen the nervous plexus which touches them, that they act as a filter to make the blood more fluid, etc., impress one as absurdities in the light of present-day knowledge. Addison[5] concludes the preface to his article, "On the Constitutional and Local Effects of Disease of the Suprarenal Capsules" with the paragraph: "There are still, however, certain organs of the body the actual functions and influence of which have hitherto entirely

*Read before the sixty-first annual session of the Colorado State Medical Society at Colorado Springs, Sept. 17, 1931.

eluded the researches, and bid defiance to the united efforts of both physiologist and pathologist. Of these not the least remarkable are the suprarenal capsules, the atrabiliary capsules of Casper Bartholinus; and it is as a first and feeble step towards inquiry into the functions and influence of these organs suggested by pathology, that I now put forth the following pages." The article itself is devoted to the presentation of eleven cases of what had previously been known as idiopathic anemia with postmortem findings, preceded by a summary of the outstanding clinical features. Addison's observations were shortly confirmed by contemporary clinicians (Wilkes, Trousseau, Greenhow), Trousseau first using the term "Addison's Disease." His work must be regarded as the beginning of modern thought and knowledge on the suprarenals; it was the first which connected abnormal states of these structures with a definite clinical picture. In fact we have at the present time progressed only a little farther than his original opinion that the symptoms are produced by an interruption from any cause of the functional activities of the adrenal bodies.

The diagnostic syndrome of Addison's disease contains four main symptoms:

1. Muscular asthenia is often the first and certainly the most constant manifestation of the disease. The outstanding complaint is often that of extreme lassitude. Some patients may have considerable temporary muscular power, but show a more or less complete lack of resistance to fatigue.

2. Pigmentation is perhaps the most striking feature. This is an exaggeration of the normal melanin pigmentation of the cells of the Malpighian stratum of the skin, and is quite variable both as to distribution and intensity. It shows a predilection for, or is more intense in, those areas which are normally more deeply pigmented, such as the axillary folds and areolae of the nipples, which are subjected to friction or pressure, and which are exposed to the rays of the sun. It may be as generalized as a sunburn or may occur in patches which vary widely in size. Most characteristic is pigmentation of the face and mucous membranes of the mouth. It varies in color from a faint brown to a dense bronze or even negroid hue. The prognosis is said to be better when pigmentation is the initial symptom[6].

3. Vascular hypotension is present in the great majority of cases and is often quite marked. The systolic pressure has reached the low level of fifty millimeters of mercury[7]. There are a few cases, however, in which repeated observations fail to reveal a blood pressure which can be considered abnormally low.

4. Gastrointestinal symptoms are a practically constant accompaniment of the disease. Anorexia, (especially for fats[8]) is a marked feature of many cases. Tympanites is often troublesome. Uncontrollable vomiting or diarrhea or both occur in some instances. All these lead to loss of weight and sometimes to extreme dehydration.

Various nervous symptoms may form a part of the symptom complex, the most common of which is headache.

There is no laboratory determination, no test of metabolism to our knowledge or experience which has been demonstrated to be of any considerable help in the diagnosis of this condition. Blood counts do not show any constant change, Addison's impression to the contrary that an anemia is constantly present. Basal metabolic rate determinations show some tendency to low readings, but not more so than can be accounted for by the presence of inanition and dehydration. Glucose tolerance tests in at least some instances, as in one of our cases, show a low curve, indicating a high tolerance for sugar. It is said that many patients have an excessive per twenty-four hour excretion of creatine when on diets known to have a low content of this substance[9]. The high blood nitrogen values seen in the crises and terminal stages of some cases are probably to be interpreted as relative renal failure due to the hypotension and dehydration[10]. Gastric hypoacidity or even anacidity is present in the majority.

The course of the disease, which varies in duration from a few weeks to three or four, or exceptionally, seven or more years is often characterized by repeated remissions and ex-

accrbations. These latter may reach a degrce of severity sufficient to justify the term "Addisonian crisis." In a "crisis" the condition of the patient becomes so serious that he is justly considered to be in imminent danger of death. The asthenia, gastrointestinal symptoms, dehydration, and perhaps the hypotension, become extreme. Nevertheless, reaction can and does occur—as in a young woman patient of ours whose condition became so poor that she developed marantic thromboses of the left internal iliac and both femoral veins. We have known of a patient who recently died of some cerebral accident, probably a thrombosis. The disease almost invariably has resulted fatally.

The syndrome is due to tuberculosis of the glands in approximately 90 per cent of cases[6]. The remaining 10 per cent are due chiefly to atrophy, whatever may be its cause.

Physiology

Addison's observations that disease of the suprarenals led almost invariably to a fatal outcome indicated that their functional activity is necessary to life. Brown-Sequard shortly thereafter (1856) removed the glands from various animals, obtained postoperative survival periods of only nine to thirty-seven hours and reached this conclusion on the basis of his findings. Numerous subsequent investigators, including Rogoff and Stewart, have reached similar conclusions. The latter workers[4], however, state that Brown-Sequard only happened to be right since his survival periods were so short, death in his animals probably resulting from postoperative shock.

In 1894 Oliver and Schafer[11] discovered that extracts of the suprarenal medulla produced a definite rise in blood pressure when injected into animals. In 1901 Takamine[12] and Aldrich[13], working independently, isolated in crystalline form the active principle of the medulla. Because this substance (adrenalin or epinephrine) in pharmacologic dosage gives rise to elevation of blood pressure, hyperglycemia, increased contraction of voluntary musculature, and other striking effects, undue importance was given to the physiological effect of that given off to the blood stream by the medulla in the live animal, and the conclusion was reached that the medulla is the part essential to life. It has been demonstrated, however, that epinephrine injected into the blood stream at the rate at which it is normally secreted by the glands, (0.000225 mg. per kilo per minute[14]), actually depresses the blood pressure slightly rather than raises it[15]. It has, in fact, been suggested that it is a toxic excretion product, and that one of the functions of the medulla is to so control its flow into the blood that it will never reach a sufficient concentration to be harmful[5]. It has, moreover, been repeatedly found in animal experimentation that, when animals are bilaterally adrenalectomized, if accessory adrenals which are purely cortical are present (as in many rabbits and rats) or if a piece of one gland consisting solely of cortex is left with an intact blood supply, these animals survive indefinitely and enjoy good health[3,4]. It is further claimed that if the cortex is removed (Biedl), leaving the medulla intact, death results as after total suprarenalectomy. Furthermore, there is a growing number of reported cases of Addison's disease in which at autopsy the cortex alone was found destroyed while the medulla was in good condition[6, 16, 17, 18]. In at least one instance, in which there were no symptoms during life, the medulla was found wholly destroyed with the cortex intact[18]. At any rate, the majority of authorities concur in the opinion that, whatever may be the function of the medulla, it is not one which is indispensable, and that it is the cortex which is to be considered essential to the maintenance of health and life.

The death of bilaterally adrenalectomized animals and the clinical entity known as Addison's disease must, then, depend upon the partial or total ablation of the suprarenal cortex. The elucidation of the etiology of this disease and the pathogenesis of its symptoms must be dependent upon a study of its physiology. Unfortunately only too little is known of this. What little is established is about as follows:

The cortex is closely related to the development of the sexual organs[19]. It arises from the mesoderm in common with the

gonads. Certain cases of sexual precocity are associated with hypertrophy of the cortex. It becomes hypertrophied during pregnancy and after castration. It is ill developed in sexual deficiency. There is said to be considerable similarity between the cells of the cortex and those of the corpus luteum. Rogoff and Stewart have shown that the postoperative survival period is definitely prolonged in bilaterally adrenalectomized animals which are operated while in heat[20] or during pregnancy[21]. A recent author[22] connects the hexuronic acid content of the cortex with regulation of the pigment metabolism of the body.

Two main theories have in the past been current regarding the mode of action of the adrenal cortex: (1) that it exercises a "detoxicating" function and (2) that it elaborates an internal secretion or hormone. The first is suggested by the fact that cobra venom was rendered innocuous by mixture with an emulsion of the cortex[23]. However, experiments designed to show an increased susceptibility of adrenalectomized animals to various toxic drugs have yielded indefinite or negative results[24, 25]. The evidence at present is overwhelmingly in favor of the second theory, and, as will be described below, active cortical extracts have been obtained by three different and independent groups of investigators.

Rogoff and Stewart have obtained average postoperative periods of survival in bilaterally adrenalectomized animals of eleven days in cats[26] and more than one week in dogs[4, 27]. They consider the dog the best experimental animal for investigation of the suprarenal. Rogoff states, in describing the postoperative course of these animals: "Untreated adrenalectomized dogs continue in good health up to about two or three days preceding death, regardless of the period of survival. During the period of good health the animal cannot be distinguished from any healthy unoperated dog. . . .

"The period of decline begins with the development of anorexia, and this is usually preceded by an aversion to food rich in fat. . . Vomiting frequently occurs, becoming bilious in character and blood is commonly found in the stools, as the animal rapidly declines. During this period the animal generally becomes apathetic and somnolent, but rarely has more than transient asthenia. However, events progress somewhat rapidly at this stage and within the ensuing day the animal becomes much more somnolent and decidedly asthenic. As the symptoms develop, the blood pressure falls. . . . Coma is present sometimes for a number of hours before death. Frequently there are symptoms referable to the nervous system. Hallucinations develop, the animal stares as if in alarm and this is associated with fits of yelling and racing about in the cage." At postmortem they found congestion of the pancreas with a well defined gastroenteritis. Rogoff[6] states that he has seen pancreatic congestion also in human cases of fulminating character and implies that this is the probable reason for the aversion to fats which is seen both in experimental animals and the clinical cases. We readily see that the symptoms of Addison's disease—which result from a slowly developing, perhaps only partial, destruction of the cortex—differ in some respects from those of the acute total suppression of suprarenal function which occurs in these experimental animals.

These investigators suggest that the function of the hormone of the cortex is to exert some regulatory action upon metabolic processes and the vital organs in general, the break resulting from its absence occurring first in the gastro-intestinal tract. They consider that the manifestations of Addison's disease and the symptoms in operated animals are due to an intoxication resulting from the lack of this regulatory influence[3]. This conception is made plausible by the facts that the postoperative survival period is much prolonged in dogs[28], and that patients have been rescued from crises, by the intravenous administration of normal saline or glucose solutions. The obvious inference is that the toxins are diluted or washed out of the body in this way.

Treatment of Addison's Disease

General: The treatment of a patient with Addison's disease should include rest, mental and physical relaxation, a light nutritious

diet preferably high in carbohydrate, adequate fluid intake, and various symptomatic measures. Any accompanying or underlying disease (e. g. tuberculosis) must of course receive proper consideration and treatment. In line with the observations of Rogoff and Stewart, the value of the intravenous injection of 10 per cent glucose in normal saline in the treatment of exacerbations and crises is strongly urged[29].

Specific: Attempts at organotherapy have been made since Addison's day, with indecisive or negative results. In 1920 Rowntree at the Mayo Clinic instituted a plan of treatment in the case of the late Dr. A. L. Muirhead[30] of Creighton University consisting of the administration of adrenalin by hypodermic, rectum, and mouth to tolerance, together with whole gland or dried cortex by mouth, with, for a short time, brilliant results. Dr. Muirhead, however, died in less than a year[31]. This procedure, since known as the Muirhead regime, has been the best plan of treatment available to the profession in general. However, the statistics of its chief exponent, Rowntree[29], show that it is of only temporary value in but little more than half the cases treated; in about one-sixth of the cases the improvement lasted for three to seven years; in the remainder the treatment seemed to be harmful. Rowntree regards it as only palliative in the therapy of Addison's disease.

The hope of a more efficient treatment seems to lie in the development, and manufacture in commercial quantities, of an active hormonal extract of the cortex. At present the only reliable criterion of activity of cortical extracts is the rigid one that by the administration of the substance the postoperative life span of bilaterally suprarenalectomized animals shall be definitely prolonged beyond the maximum for the untreated controls. At the present time three independent groups of investigators claim to have produced an extract which answers this requirement.

In 1927, F. A. Hartman[32] and his colleagues obtained a substance which they call cortin by precipitation with sodium chloride from a watery extract of cortex. Injections of cats twice daily with this substance prolonged the average survival period to 27.4 days as compared to five to six days for their controls. Subsequently (June, 1930)[33] the method of preparation was changed to an alcohol and ether extraction which provides an extract of any desired concentration 50 gms. fresh cortex per cubic centimeter). This method is similar in some respects to one previously described by Swingle and Pfiffner. According to a personal communication from Dr. Hartman (August 19, 1931) five patients are being treated successfully with this product.

In February of 1928, Rogoff and Stewart[34] reported the preparation of an adrenal cortical extract, which prolonged the survival period, when administered intravenously to adrenalectomized dogs, definitely beyond that of their numerous untreated controls. They have subsequently named this product interrenalin. In May of 1929, they reported improvement in seven cases of Addison's disease under treatment by interrenalin by mouth[35]. This improvement appeared about two to four weeks after the beginning of treatment and consisted of improvement in appetite and strength, gain in weight, control of diarrhea, moderate rise in blood pressure, and lessening of pigmentation.

The preparation with which the most outstanding results have been reported, both in animals and man, is that of Swingle and Pfiffner. In December, 1929, they reported the extraction from cortex tissue with alcohol and benzene of a liquid fraction which they demonstrated to be effective in prolonging the lives of bilaterally adrenalectomized cats[36]. Later, by means of redistributions through acetone, petroleum ether, and alcohol, they were able to further eliminate inert substances and obtained an aqueous extract which satisfied the criterion of potency[37]. With this aqueous extract they have brought back to normalcy operated cats showing early symptoms of hypoadrenia, and have even rescued animals from the last stages in which they were prostrate and in imminent danger of death[38, 39]. By filtration through permutit the solution is practically freed of adrenalin[40] (to a concentration of

one part in 1,500,000 or less), and the product can now be given intravenously without danger from this source. Certain technical difficulties have arisen in the manufacture of it in commercial quantities, and the first extract made by Parke, Davis and Company was said to be without activity. However, a lot has recently been tried out which has at least some activity[9], and it is said that the extract will be placed on the market on or about October 1, of this year (1931).

Early this year, Rowntree and Greene[29] reported a series of seven cases treated by them at the Mayo Clinic with the hormone of Swingle and Pfiffner. The immediate improvement resulting from the daily intravenous injection of fifteen to twenty cubic centimeters of the extract was rapid and dramatic. Because of the limited supply of this material they have been unable to continue treatment in any one case indefinitely. However, some of these patients, and of those subsequently treated, were repeatedly rescued from crises, one[41] recovered readily from a severe bronchopneumonia; others were enabled to undergo minor surgical procedures without undue reaction. In a recent summary (May, 1931)[9] of their experience with this treatment, they state that of twenty-two cases of Addison's disease the immediate results were excellent in seventeen; six died, three while under treatment; and three gave unsatisfactory or no response. Ten patients treated with an extract furnished by the Parke-Davis Company showed improvement much more slowly and less dramatically than the first patients treated with extract prepared by Swingle and Pfiffner. They stress the point that the results obtained are only immediate, and that years will be necessary to determine the real value of the hormone. They summarize the clinical changes observed with the treatment as follows: "(1) disappearance of anorexia, nausea, vomiting, and of pain; (2) development of hunger and return of normal gastrointestinal activity; (3) relief from fatigue and improvement in sleep; (4) increase in strength and endurance; (5) increase in weight; (6) decrease in pigmentation; (7) change in mental attitude with the access of hope and euphoria; (8) increase in blood pressure, although slight and secondary; (9) resumption of normal functions and desire to work, and (10) increased resistance to infection, surgical procedures, and drugs."

During the past five months (up to August, 1931) we have treated two cases of Addison's disease with a suprarenal extract made by Mr. James Thompson and Dr. Richard Whitehead at the University of Colorado Medical School, according to the technique of Swingle and Pfiffner. We have not at any time been able to give doses as large as those used by Rowntree and Greene. We have, however, persisted in treatment over a longer period than appears to have been possible in the majority of their cases.

In one case, a woman twenty-three years of age, in whom there has never been any question of tuberculosis, there has been a gradual progressive improvement for the past four months with increase in appetite, control of diarrhea, gain in weight from seventy-two to ninety-six pounds, and increase in strength to such an extent that she can now do her own housework. The systolic blood pressure has increased moderately. The pigmentation has remained unchanged. She has received ten cubic centimeters of the extract intravenously every two weeks. It will be noted that this case lacked the dramatically rapid improvement which characterized many of those reported by Rowntree and Greene.

In the other, a man thirty-one years of age, there has not been as yet so satisfactory a response. For about the first month after starting treatment two months ago, during which time he received four cubic centimeters of hormone intravenously weekly, his extreme diarrhea disappeared and he became constipated for a number of days; his strength increased, and he gained three pounds in weight. For the past four to five weeks, although the treatment has continued as before, he has again felt weak, has had considerable tympanites, and his diarrhea has returned—although to a much less degree than formerly. This patient had cough and sputum with a history and some signs suggestive of old pulmonary tuberculosis.

Although he was afebrile before the treatment was begun, he began to run a daily afternoon fever of a fraction of a degree to 102°F., which has continued to the present, although since its onset we have given the hormone intramuscularly instead of subcutaneously. Early in July, he had moderate pleuritic pain in the lower left axilla with a friction rub at the same site. During this relapse he lost weight to five pounds below that at which the treatment was begun. We considered that there was reactivation of the tuberculosis, probably caused by the hormone, since we have been told that a comparable sequence of events has occurred in other cases in which tuberculosis was the underlying disease.

Summary

1. A cortical hormone has been extracted capable of greatly prolonging the lives of adrenalectomized animals.

2. This hormone is superior to any other remedial agents yet used in treating Addison's disease.

3. The dosage, method of administration and commercial production awaits further experience and study.

BIBLIOGRAPHY

[1]Swale Vincent: Internal Secretion and the Ductless Glands. P. 123. 1925: Phys. & Surgs. Book Co., N. Y. 1925.

[2]Prentiss-Arey: Textbook of Embryology. Ed. III. Pages 368-69; 1922. W. B. Saunders Co.

[3]Stewart, G. N.: The Adrenal Glands, Arch. Int. Med. 43:733-766 June, '29.

[4]Rogoff, J. M.: On the Function of the Adrenals. Endokrinologie 5:256, '29.

[5]Addison, Thos.: On the Constitutional and Local Effects of Disease of the Suprarenal Capsules. London: Samuel Highley. 1855.

[6]Guttman, P. H.: Addison's Disease, Statistical Analysis of 566 cases and Study of the Pathology. Archives of Pathology, 10: 742, November, 1930, 895, December, '30.

[7]Hartman, F. A.: Aaron, A. H. and Culp, J. E. The Use of Cortin in Addison's Disease, (Case Report). Endocrinology 14:438 Nov., Dec., '30.

[8]Rogoff, J. M.: Diagnosis and Treatment of Addison's Disease. Canadian Med. Assn. Jour. 24:43-51, '31.

[9]Green, C. H. and Rowntree, L. G.: Further Studies in Addison's Disease. Proceedings of the Staff Meetings of the Mayo Clinic 6:305, May 20, '31.

[10]Rowntree, L. G.: Studies in Addison's Disease. J. A. M. A. 84:327 Jan. 31, '25.

[11]Oliver, Geo. and Shafer, E. A.: The Physiological Effects of Extracts of the Suprarenal Capsules. Jour. Physiol. 18:230, '95.

[12]Takamine, J.: The Blood-Pressure-Raising Principle of the Suprarenal Glands—A Preliminary Report. Therapeutic Gazette of Detroit. Whole Series 25:221, '01.

[13]Aldrich, T. B.: A Preliminary Report on the Active Principle of the Suprarenal Gland. Amer. Jour. Physiol. 5:457, '01.

[14]Stewart, G. N. and Rogoff, J. M.: The Epinephrine Output Estimated by Collecting the Adrenal Blood Without Opening the Abdomen. Amer. Jour. Physiol. 56:213, '21.

[15]Hoskins, R. G. and McClure, C. W.: The Adrenal Glands and Blood Pressure. Arch. Int. Med. 10:343, '12.

[16]Brenner, O.: Addison's Disease with Atrophy of the Cortex of the Suprarenals. Quart. Jour. Med. 22:121, '28 and '29.

[17]Saphir, O. and Binswanger, H. F.: Suprarenal Cortical Insufficiency and Cytotoxic Contraction of the Suprarenals. J. A. M. A. 95:1007. Oct. 4, '30.

[18]Barnard, W. G.: Adrenal Atrophy in Addison's Disease. Jour. Path. and Bacteriol. 33:765, '30.

[19]Macleod, J. J. R.: Physiology and Biochemistry in Modern Medicine P. 964. Ed. V. '27. C. V. Mosby Co.

[20]Rogoff, J. M. and Stewart, G. N.: The Influence of "Heat" on the Survival Period of Dogs after Adrenalectomy. Amer. Jour. Physiol. 86:20. Aug., '28.

[21]Rogoff, J. M. and Stewart, G. N.: The Influence of Pregnancy upon the Survival Period in Adrenalectomized Dogs. Amer. Jour. Physiol 79:508. Jan., '27.

[22]Szent-Gyorgyi, Albert: On the Mechanism of Biological Oxidation and the Function of the Suprarenal Gland. Science, 72:125, Aug. 1, '30.

[23]Meyers, W.: A Preliminary Note on the Antidotal Properties of Normal Tissue Emulsions with Respect to Cobra Poisons. Trans. Path. Soc. 49:368. London, '98.

[24]Rogoff, J. M. and Ecker, E. E.: Susceptibility of Albino Rats to Tetanus Toxin Following Adrenalectomy. Amer. Jour. Physiol. 80:200, March, '27.

[25]Rogoff, J. M. and DeNecker, Jos.: The Influence of the Adrenals on the Toxicity of Morphine. Jour. Phar. and Exp. Therapeutics, 26:243, '25.

[26]Rogoff, J. M. and Stewart, G. N.: The Survival Period of Untreated Adrenalectomized Cats. Amer. Jour. Physiol. 88:162, Feb., '29.

[27]Rogoff, J. M. and Stewart, G. N.: Studies on Adrenal Insufficiency in Dogs—Control Animals Not Subjected to Any Treatment. Amer. Jour. Physiol., 78:683, Nov., 1926.

[28]Rogoff, J. M. and Stewart, G. N.: The Influence of Intravenous Injections of Ringer's Solution upon the Survival Period in Adrenalectomized Dogs. Amer. Jour. Physiol. 84:649, '28.

[29]Rowntree, L. G., Greene, C. H., Swingle, W. W., Pfiffner, J. J.: Addison's Disease, Experiences in Treatment with Various Suprarenal Preparations. J. A. M. A., 96:231, Jan. 24, '31.

[30]Muirhead, A. L.: An Autograph History of a Case of Addison's Disease. J. A. M. A., 76:652, March 5, '21.

[31]Rowntree, L. G.: Subsequent Course of a Case of Addison's Disease. J. A. M. A., 79:556, Aug. 12, '22.

[32]Hartman, F. A., MacArthur, C. G., Hartman, W. E.: A Substance Which Prolongs the Life of Adrenalectomized Cats. Proc. Soc. for Exp. Biol. and Med., 25:69, '27.

[33]Hartman, F. A. and Brownell, Katherine A.: The Hormone of the Adrenal Cortex. Proc. Soc. for Exp. Biol. and Med., 27:938, '30.

[34]Rogoff, J. M. and Stewart, G. N.: The Influence of Adrenal Extracts on the Survival Period of Adrenalectomized Dogs. Amer. Jour. Physiol., 84:660, April, '28.

[35]Rogoff, J. M. and Stewart, G. N.: Suprarenal Cortical Extracts in Suprarenal Insufficiency (Addison's Disease). J. A. M. A., 92:1569, May 11, '29.

[36]Swingle, W. W. and Pfiffner, J. J.: The Preparation of an Active Extract of the Suprarenal Cortex. Anat. Record, 44:225, Dec., '29.

[37]Swingle, W. W. and Pfiffner, J. J.: An Aqueous Extract of the Adrenal Cortex Which Maintains the Life of Bilaterally Adrenalectomized Cats. Amer. Jour. Physiol., 96:164, Jan. '31.

[38]Swingle, W. W. and Pfiffner, J. J.: The Revival of Comatose Adrenalectomized Cats with an Extract of the Suprarenal Cortex. Science, 72:75, July 18, '30.

[39]Swingle, W. W. and Pfiffner, J. J.: The Revival of Cats Prostrate from Adrenal Insufficiency with an Aqueous Extract of the Cortex. Amer. Jour. Physiol., 96:180, Jan., '31.

[40]Swingle, W. W. and Pfiffner, J. J.: On the Cortical Hormone of the Adrenal Gland. Proc. Soc. for Exp. Biol. and Med., 28:510, '31.

[41]Ball, R. G. and Lansbury, J.: Further Observations on Addison's Disease. Proc. of the Staff Meetings of the Mayo Clinic, 6:77, Feb. 11, '31.

Note: Jan. 15, 1932. Parke, Davis & Company has agreed to furnish the extract through their local druggists but only by special order of physicians. The product is marketed under the trade name "Eschatin."

DISCUSSION

George A. Unfug, Pueblo: Since Dr. Kemper has covered this subject so thoroughly, and since we are most interested in the therapeutic use of this cortical extract, I think I shall confine my discussion to a case report in which this cortical extract was used. I had a woman under my care in September, 1930. She was thirty-nine years old, married; her chief complaints were weakness, anorexia and vomiting of two or three weeks' duration. She had pigmentation of the skin which she noticed eight or nine years previously. These gastro-intestinal symptoms and the weakness had progressed rapidly in the past few days. When we saw her she could retain nothing by mouth and was at the point of exhaustion. Past history was negative, except for two severe attacks of influenza, one in 1929, from which she dated her present trouble. Marital history, negative, except she had a child two and a half years old who died of diabetes mellitus. We found marked pigmentation or bronzing which covered the arms, hands, most of the trunk and face. The patient was very, very weak; she had no power in her hand grip and could not stand alone. She had been bed ridden for two weeks prior to going to the hospital. Her normal weight was around 118 pounds; on admission it was 107 pounds. The family history was negative. Laboratory examinations were negative with the exception of a basal metabolic rate of minus 20. X-rays of the chest and also of the kidney areas, the latter made hoping to find calcified adrenals, were entirely negative. A diagnosis of Addison's disease was made. She progressively grew worse. Occasionally she sat up in a chair but required much help to be moved from the bed to the chair. Her attacks of nausea and vomiting were growing more frequent and severe. November 8, two months after admission, through Dr. Kemper I learned of Dr. Rowntree's work and was able to obtain a small supply of the Swingle extract. She was given 15 c.c. in 7½ c.c. doses intravenously each day for three days, and on the second day after treatment was started she got up and walked around the room unassisted. She ate a good breakfast the morning after we started treatment. Just prior to starting treatment the blood pressure was systolic 86 and diastolic 62. On November 11, I have this notation, "Patient feels much better. She walks around the room with comparative ease. Several of the doctors stepped in to see her to see the remarkable results obtained, and every time the doctors came in the room she would get up and walk around the entire room." On November 16, she was discharged from the hospital and rode fifty-six miles in an automobile to her home. She had had no nausea since starting treatment with cortical extract. On December 22, after she had a course of subcutaneous injections of an extract obtained from the University of Chicago, ranging from ¼ c.c. to 1 c.c., she gradually improved still further. She was up about the house every day. Her husband would take her out in the car in the afternoon. About January 10 she came back to see us, riding 115 miles in one day in the automobile without any undue fatigue. In the early part of February, she had what her family physician said was influenza and never fully regained her strength. Her nausea returned. On March 4, she was much weaker, with a return of some of her gastro-intestinal symptoms. Ten to 15 c.c. of the extract having been obtained from Drs. Rowntree and Green; it was given to her in two days, after which she had a slight improvement. On April 17, she was given 30 c.c. of the Parke-Davis preparation, obtained from Dr. Rowntree. She noticed no improvement whatsoever. We sent her to the Mayo Clinic, because they had a large quantity of the extract, and she was given 100 c.c. of the extract (Parke-Davis) there over a period of days, with no improvement. After being there about two weeks, she became unconscious and was given 85 c.c. of the Swingle extract. On May 26, she died. In personal conversation with Dr. Green, I learned she evidently died from cerebral thrombosis. In conclusion, I want to say that this appears as one of the failures of the cortical extract. However, this patient was given a life of comparative comfort, whereas before she has been miserably sick, and I believe we prolonged her life four or five months, and those four or five months were in comparative comfort. As Dr. Kemper states, a great deal of work remains to be done on this extract. It has been well demonstrated that quantity production has not been fully worked out. It will take a long time and many years to see what the full effect of it is, but I do think we have something definite.

W. B. Yegge, Denver: I think Dr. Kemper and his associate should be complimented on the excellent work in this new field, handicapped as they are in making this new extract. It was my good fortune about a year ago to be able to see the patient that Dr. Kemper spoke about, and it was really remarkable the results they were obtaining with this extract. On the same trip I also saw some cases that Dr. Rowntree had under treatment. I saw these cases a month later, and the results were really astounding. Some of these cases I thought, when they first came in, were going to die. A very interesting thing in Addison's disease is the new conception of etiology. I always used to think it was due to tuberculosis, but it seems that most of these cases are now coming to be recognized as entirely different. It seems to me that influenza is causing a good deal of trouble in the suprarenal gland. I would like to ask if Dr. Kemper

does not think that this so-called cancer cure of the west coast, does not have some relation to this extract, and probably is the same thing. Also is not the reason that they are getting some good results that the patient feels better, and not because of any curative power?

R. W. Whitehead, Denver: Dr. Kemper has asked me to say a few words about the extract. First of all, I want to thank Dr. Kemper and Dr. Dickman for the opportunity they have given us to try out this extract. We have had occasion to try the extract in two other cases, and we have found that it gave us results, amelioration of their symptoms, and the first result they get is an improvement in the gastro-intestinal symptoms and in muscular strength. We had occasion to use the extract after it was first prepared. At Mayo's they used the extract intravenously, and one man treated there evidently got a little worse from the large doses given. For that reason we thought we would be cautious and use the extract intramuscularly or subcutaneously. In both of our cases there has been a gradual improvement. One case is a woman engaged as a cook this summer, cooking for about twenty people. Before the extract was given she was unable to do her own work. As Dr. Kemper has told you, the extract, as prepared by Swingle and Pfiffner is made from an extract of the adrenal glands of beef. Alcohol, acetone, and benzene are used as solvents. Filtration through permutit takes out the major part of the adrenalin. The extract cannot be heated. We get about 120 c.c. from somewhere around fifteen pounds of glands. The extract keeps pretty well in the ice box, and it has been found that the addition of one-tenth per cent of benzoic acid will help to keep it. It also can be kept by the addition of a small quanitity of resorcinol. As Dr. Kemper has outlined, there is a lack of knowledge regarding the composition of this adrenal extract. The fact that we can obtain it with various lipoid solvents probably tends to show that it is lipoid in character. As regards its action, we do not know very much yet, but we do know that it has improved the patients' condition. They get such a marked improvement in their muscular activity, and are able to carry on much better than they did before. Their improvement in muscular strength is not due to the improvement in circulation. Their blood pressure does not rise very much. They gradually increase in weight. One of our cases gained seven pounds in the last two months. He has been treated for the last five months. As to the mechanism of action of this substance, we have very little knowledge.

Dr. Kemper (closing): Dr. Whitehead has said that patients feel better following the injection of the extract. Dr. Rowntree has thought that cases of neurocirculatory asthenia can be differentiated from Addison's disease by noting the subjective relief following its injection. Dr. Unfug reports that diabetes occurred in a particular patient of his. That is very interesting. I do not know just how the Islands of Langerhans are related. but his experience is in line with that of others leading to a belief in an understanding among the various members of the ductless gland family. The first case reported, while under treatment, developed tetany which responded to intravenous injections of calcium. It has been known for quite a while that an hypophesectomized animal will develop degeneration of the suprarenal cortex and the thyroid gland.

Dr. Hartman, in a letter received not long ago, said he believed cortin was as specific as insulin. That seems to be putting the matter very strong. If that is true, the isolation of this substance is certainly a major development in medicine in the last twelve months. Dr. Stewart seems to feel about the same. Also Dr. Rowntree and Green believe in its specificity. The presence of a potent hormone has long been surmised. It has only required someone to come along with "a simple turn of the wrist" to bring forth a specific and potent extract certainly of much value in degenerative lesions of the adrenal glands and also of possible value in many other conditions.

ALIMENTARY ANEMIA*

GEORGE M. BLICKENSDERFER, M.D.
DENVER

This form of anemia is described in the literature under various synonyms, such as breast milk anemia, goat's milk anemia, cow's milk anemia, nutritional anemia, and food anemia. These terms are used to describe what seem to be secondary anemias occurring in infants and children in which no history or evidence of toxemia or infection can be obtained. There seems to be a dearth of information in the English literature concerning this disease, but the German literature is rich in its description. It is seen much more frequently in European countries, particularly Germany, than in this country.

This disease as an entity was first described by Czerny in 1912, and four years later a more detailed report was given by Kleinschmidt. Bear, in 1927, and Opitz, in 1928, discussed the subject at great length. Abt and Hess mention it in their latest text books on pediatrics, and recently the current American literature has contained a number of articles, notably those of Hymanson and Anderson, dealing with this condition.

This form of anemia occurs most frequently between the ages of three months and two years. It is, however, seen in infants under three months and in children up to five years of age. It is especially prone to

*Read before the sixty-first annual session of the Colorado State Medical Society at Colorado Springs, Sept. 16, 1931.

occur in premature infants, and in these cases is thought by some to be due to a lack of the iron which is stored up in the liver of the fetus during the last three months of intrauterine life. Twins and infants who are weak at birth seem predisposed to the disease. Twins, especially, are apt to develop it as the available amount of iron is divided.

There is a fairly general consensus of opinion among observers that some congenital anomaly or predisposition exists in the etiology of the anemia. It has not been established as a fact that underfeeding over long periods produces a reduction of red blood cells and hemoglobin; furthermore, fasting is known to be a stimulant to the regeneration of blood. This form of anemia is at times associated with rickets, intestinal troubles, tuberculosis, and various other infections, but most of these children have a history of being fed almost exclusively on milk, either breast, goat's or cow's milk.

There are two groups of cases: One group, listless, shows evidence of malnutrition with varying degrees of underweight. The other group is comprised of plump, active babies who take their nourishment well, are of average weight, and sometimes are overweight. The anemic pallor and the characteristic blood findings, namely, marked reduction of the hemoglobin and red cells, are common to both groups. In true alimentary anemia the red cells are not nucleated nor do they show the characteristic morphological changes that occur in some other forms of secondary anemia. The anemia is usually more profound in the underweight group, the hemoglobin being as low as twenty per cent and the red cells as low as 1,000,000.

In one of the writer's cases the hemoglobin was only eight per cent and the appearance of the blood straw colored, there being no evidence of red coloring matter in the blood as it was drawn into the syringe. In the underweight group some cases show a tendency to hemorrhage. In the average or overweight group, the hemoglobin may be as low as forty per cent and the red cells 3,000,000 to 4,000,000. Tendency to hemorrhage is not seen in this group. In true alimentary anemia the spleen is not enlarged, according to Czerny, the presence of enlarged spleen excludes the diagnosis of this type of anemia. Autopsy findings show no structural changes which are characteristic of the disease.

The following four cases represent an unusually severe type of alimentary anemia seen on my service at the Children's Hospital in Denver. Toxic agents as etiological factors in these cases have been carefully considered, but the writer believes that in all of them, improper feeding was the primary cause, and the infections were secondary.

Case 1

Doris P., admitted to Children's Hospital, Sept. 16, 1927, aged eight months, one of twins born at term, birthweight three pounds four ounces. Father and mother, healthy. Breast fed three months, weaned because mother contracted measles which was communicated to the child and its twin. Both were fed on goat's milk exclusively from then until admitted to the hospital; no cod-liver oil, orange juice, or other vitamin-containing foods given. Two months after weaning, the mother noticed that the child had a marked pallor and had failed to gain in weight, but did not consult a physician. The appetite was good, the bowel movements normal, and the general health seemed good.

Physical examination: Temperature, 102°F. Pulse, 120. Weight, 11 pounds, 11 ounces. Face and body show marked pallor; muscles flabby; no other abnormalities found.

Laboratory findings: Urine, negative. Blood, hemoglobin thirty-six per cent, red cells 2,700,000, white cells 13,000 (polymorphonuclears 40, lymphocytes 55, normoblasts 3, myeloctes 2). Coagulation time, eight minutes.

Two days later the temperature was normal and 160 c.c. of the father's blood was given into the longitudinal sinus. The child was placed on a diet comprised of fruit juices, mashed vegetables, and cereals, with small amounts of cow's milk modified with karo syrup. Codliver oil was also given and the child exposed to the ultra-violet ray daily until discharged. No iron was given. The patient left the hospital in excellent condition two weeks after admission. Weight

on discharge, 12 pounds. Blood, hemoglobin seventy-eight per cent, red cells 4,950,000, white cells 7,400 (polymorphonuclears 43, lymphocytes 56, large mono. 1). Diagnosis: Goat's milk anemia.

Case 2

Dolores P., a twin of case No. 1, admitted at the same time, Sept. 16, 1927, in a moribund condition. The history is essentially the same as that of Case 1. Birth weight, three pounds six ounces. Measles, at three months; at this time she was weaned, following which pallor was noticed. The day before admission, the child vomited twice and had five movements of the bowels. On the morning of admission the mother noticed that the child cried frequently and seemed very ill, and both twins were brought from a ranch, thirty-five miles distant, to the Children's Hospital.

Physical examination: Negative except for the marked pallor and flabby muscles. Intramuscular injection of blood was given immediately and saline solution into the peritoneum, but the child expired five hours after admission. Blood: hemoglobin, eight per cent; red cells 1,280,00 ; white cells 22,400 (polymorphonuclears 25, lymphocytes 71, large mono. 4) ; coagulation time, seven minutes. Extensive destruction of red cells was observed. Urine: albumen 1 plus; sugar, negative; acetone, negative; occasional leukocyte and red blood cell.

Autopsy findings: No abnormalities were found in the thoracic cavity. The kidneys were large and boggy and the parenchyma bulged somewhat upon incision, the marking being rather indistinct. No other pathological conditions were encountered. The brain was not examined. Clinical diagnosis: goat's milk anemia. Anatomical diagnosis: toxemia of unknown origin, and acute parenchymatous nephritis. In these two cases the diagnosis of true alimentary anemia is open to question, due to the history of measles infection at the age of three months, but the prompt response to dietic treatment in Case 1, justified the diagnosis. In Case 2, the child died as a result of unknown infection due to lowered resistance.

Case 3

J. L., male, aged seventeen months. Admitted to Children's Hospital Sept. 23, 1930. Parents, living and well. Five brothers and two sisters, living and well. Family lives on a ranch in eastern Colorado. Birthweight, seven pounds; breast fed exclusively from birth until date of admission to the hospital. He had never had codliver oil nor orange juice and was apparently well until three months ago, although always pale and flabby. The pallor had increased, and the baby had been more listless during the past three months. For two weeks, he had been stuporous and refused to play and for several days had coughed. He had never made any attempt to walk. First tooth appeared at the sixth month.

Physical examination: The child is pale, plump, but flabby; the skin has a pasty appearance. Sixteen teeth are present, all badly decayed and discolored. Mucous rales are heard all over the chest. There is no dullness on percussion. No other abnormalities found.

Blood examination: Hemoglobin twenty per cent, red cells 1,200,000, white cells 6,200 (polymorphonuclears 32, lymphocytes 67, large mono. 1), marked achromia. Coagulation time, three minutes. The urine is negative.

Radiologists report: Congestion of bronchi of both lungs; otherwise the examination is negative. Sept. 24, 120 c.c. of blood from the father was given intravenously. The child was weaned from breast and given a diet of fruit juices and mashed vegetables, cereals, beef juice, cow's milk, and codliver oil. Blood examination: September 26, hemoglobin 78, red cells 3,800,000; September 29, hemoglobin 52. Temperature ranged from 101° to 105°. Evidence of consolidated areas appeared in both lungs. October 1, blood transfusion was given. The child expired eight hours later. Autopsy, refused. Diagnosis: breast milk anemia and bronchopneumonia.

Case 4

D. H., female, aged nine months. Admitted to Children's Hospital Dec. 14, 1930. Parents, living and well; no other children. Born at term, weight seven pounds eight ounces. Instrumental delivery, no trauma. Breast fed, two months; since then, goat's

milk exclusively. No codliver oil nor orange juice had been given at any time. The child has always been very pale, but well. The present illness began Dec. 12, 1930, with fever 103°, vomiting of large curds, and refusal of food. Three convulsions occurred during the past twenty-four hours.

Examination: General appearance, extremely pale; pasty-looking skin. Body well developed, but muscles flabby. Right otitis media present. Temperature, 103°. No other pathological conditions found.

Laboratory findings: Urine contains a faint trace of albumin and a few pus cells. Blood: Hemoglobin 20, red cells 1,320,000, white cells 8,000 (polymorphonuclears 6, lymphocytes 94). Marked achromia; coagulation time, two minutes. Intradermal tuberculin test, negative.

The child was given hypodermoclysis of five per cent glucose solution at once, and a suitable diet was ordered. Nothing given by mouth was retained. Paracentesis of the right tympanic membrane was performed with some drainage resulting. The temperature remained high. December 15, blood transfusion of 150 c.c. was given to the child. December 19, temperature, still high, and another blood transfusion of 150 c.c. was given without unfavorable reaction. Forty-eight hours later, temperature 106°. Clinical evidences of broncho-pneumonia were present, confirmed by x-ray. Child expired December 28.

Autopsy performed December 29: Well developed broncho-pneumonia in both lungs with atelectatic areas surrounded by hemorrhagic areas in the right lung. No other pathological conditions found. Clinical diagnosis: Alimentary anemia and broncho-pneumonia. Anatomical diagnosis: Acute broncho-pneumonia.

The prevention and treatment of alimentary anemia is as follows: The blood of an infant fed exclusively on milk, who exhibits unusual pallor, should be subjected to examination. If anemia be present, a change in the diet is indicated, and food containing proper vitamins and mineral salts should be given. The milk should not be entirely discontinued, but other articles of diet added; orange, prune and tomato juice, given at first in small quantities and gradually increased, will prevent alimentary anemia from developing regardless of the previous form of feeding. Strained soups of all kinds may be added. The cooking water from potatoes, carrots, spinach, and turnips may be used as a diluent for the milk in writing formulae. Codliver oil should be given after the first month.

The severe cases are not usually seen before the fifth month and with a reduction in the amount of milk, puree of vegetables and cereal mixtures may be used in addition to the fruit juices. After the fifth or sixth month, vegetables, well cooked, may be added to the diet. Spinach, mashed potatoes, asparagus tips, cauliflower, carrots, turnips, and peas mashed, given in gradually increasing amounts are easily digested and assimilated. Older children may have, complementary to the above, finely ground meat, other mashed vegetables, tomatoes, bananas and other fresh fruits, whole eggs and cottage cheese; small quantities of milk may also be given.

If anemia is profound, blood transfusion should be done and repeated as indicated by the hemoglobin percentage and the red cell count. The administration of iron alone seems to be of little, if any, value in the treatment of this form of anemia.

Experimental work on rats conducted by Hart, Steenbock, Waddel, and Elvehjem, from 1925 to 1928 and confirmed by Underhill, Orten, and Lewis, at the University of Colorado, show that copper as a supplement to iron is the only metal which will cure alimentary anemia in these animals. Iron alone was unsuccessful in the prevention or cure of anemia in the rats on an exclusive milk diet. Other metals such as manganese, cobalt zinc, and nickel in large amounts had no permanent effect, although in some cases a temporary increase in the hemoglobin was observed.

Conclusion

Alimentary anemia in infants is usually caused by an exclusive milk diet over too long a period of time. It can be prevented and cured by supplementing the milk with varieties of food, particularly fresh fruits and vegetables. These supply the necessary

vitamins and mineral elements, especially iron and copper, in which milk is deficient.

DISCUSSION

J. H. Woodbridge, (Pueblo): I wish to compliment Dr. Blickensderfer on his excellent presentation of this subject, and also to commend him on bringing to our attention this form of anemia in infancy. I think that this condition is much more frequent than we appreciate, and that milder forms of it are rather prevalent. The symptoms, history, and characteristics have been so clearly set forth that little or nothing can be added. I wish, however, to say a few words briefly regarding the more intricate etiology and consequent treatment of this condition. There was a time when it was supposed that this trouble was more or less limited to infants fed on goat's milk, and therefore the cause was ascribed to some supposedly deleterious constituent of the milk, but since we have realized that it also occurs in those fed on cow's milk and on breast milk, such etiology has been discarded.

Among the numerous substances concerned in the fabrication of hemoglobin in the body, two stand out prominently in this condition, viz: the amino acids and iron:

1. Amino acids may be termed the parent substances of hemoglobin, especially arginin, glutamic acid, tyrosin, aspartic acid, prolin, and tryptophane, according to recent investigation. It seems probable that the liver is very largely concerned with the complex internal pigment metabolism and associated fabrication of hemoglobin from these substances. Muscle hemoglobin (in distinction from blood hemoglobin) according to the investigations of G. H. Whipple, is a very fruitful source of these amino acids and pigment substances. Muscle hemoglobin exists in liver, heart, kidney, pancreas, and also in the various meats used as foods.

2. Iron is, of course, necessary to the structure and function of hemoglobin. We are all doubtless familiar with the recent investigations of Hart and Steenbock, demonstrating the advantages of giving iron with the addition of small quantities of copper in the treatment of anemia. Amino acids contain no copper and only negligible traces of iron.

Singularly, milk is deficient in all these substances referred to. Breast milk contains so little iron that even the breast fed infant must rely upon that which was stored in its own liver during fetal life until a source other than milk is supplied. Likewise, cow's milk and goat's milk are deficient in iron. Therefore, infants are prone to become anemic during the latter half of the first year and care should be taken to supply this deficiency of iron. Casein (more so than lactalbumin) is relatively deficient in those amino acids that can be utilized by the human economy, in the fabrication of hemoglobin. So, also, are most all dairy products. Therefore, an infant fed exclusively on milk is very prone to develop anemia. It seems to me in these two deficiencies of milk, we have the etiology of alimentary anemia.

In regard to treatment: If there exists an actual iron shortage in the body, the administration of iron with copper or iron-bearing food is indicated. Usually those foods containing iron also contain traces of copper. Likewise, there should be added to the infant's diet foods containing those amino acids which can be utilized in the manufacture of hemoglobin. Fortunately some of these foods contain also iron (of course, in organic form). According to recent investigations liver stands at the top as to value in the treatment of secondary anemia. Kidney stands next. Bone marrow, spleen, and pancreas are about one-third as valuable as liver. Ordinary meats are about one-half as valuable. Fruits, especially peaches, apricots, apples, and prunes are useful and of somewhat less value are beet greens, spinach, and asparagus.

I should not neglect to say that, of course, the most prompt and most efficient treatment for this condition is transfusion.

W. W. Barber, (Denver): It would seem that if the term ailmentary anemia is to be recognized as a clinical entity, it must be explained as a result of faulty digestion and has nothing to do with previous congenital mal-development in the blood-forming organs. If the cases (particularly the twins) here described were born with the blood-forming organs functioning, poorly or inadequately, or if they developed anemia as the result of chronic infection, the etiology is congenital or infectious and not alimentary in origin. If this distinction is not recognized the therapeutics employed will fall short of the desired results.

There can be no doubt that children suffer from alimentary anemia, but the lowered hemoglobin is far more frequently the result of infection than from faulty digestion or diet. It is a common observation that the absorption of bacterial toxins produces anemia. It is not so well recognized, however, that the lower the hemoglobin becomes the more impaired the digestive functions become, irrespective of the cause of the anemia. When the hemoglobin is forty per cent or below the most carefully regulated diet is often handled with difficulty. When the digestive capacity is thus impaired the patient falls easy prey to all types of infection with which he may come in contact. In this way an infection produces anemia and both diminish the powers of digestion. Merely because a patient has anemia accompanied by digestive disturbances, it is not logical that it is entirely alimentary in origin. It is easy and I think we are particularly prone to call such cases alimentary anemia which they are not.

If a patient becomes progressively anemic even down to fifteen or twenty per cent, because of improper food or as the result of faulty digestion both due to one etiological factor, that factor should be recognized and eliminated. This having been done, numerous means are available to hasten the blood to return to the desired quality.

Milks containing a high fat content apparently are the chief cause of true alimentary anemia. The condition is seen most frequently in infants where goat's milk alone is used. It may develop, however, in any milk diet too rich in cream. During the process of digestion fats are split into fatty acids and glycerin. When they are overabundant in the diet, they cannot be properly absorbed by the intestinal mucous membranes and converted into human fat. The fatty acids, during their residence in the bowel must be neurtalized by robbing the body of alkalies. This results in fat soap stools, often hard and dry with resultant constipation and sometimes bleeding from the rectal mucosa. As the salts are drawn from the body, anemia develops. The constipation diminishes the appetite. Since all milks are poor in iron content the blood becomes more and more impoverished in this element.

Nutritional anemia would probably be a better term than alimentary anemia because the underlying condition is the result of faulty nutrition and has nothing to do with any pathological peculiarity in the digestive apparatus itself.

E. R. Mugrage, (Denver): If I may refer again

to the tissue bone marrow, I believe we have in the condition of alimentary anemia another picture which might be compared with the condition previously discussed, that of agranulocytosis. We have in bone marrow many white cells and red cells in formation. We are concerned with red cell formation. If we have a bone marrow which is not physiologically normal, we cannot expect to have normal red cells turned out, and undoubtedly there is some abnormality present in the bone marrow, in the condition under discussion. Normally, bone marrow produces red cells as worn out red cells are retired, the body saving the important part, the iron content, for subsequent formation of hemoglobin in new red cells. This progresses so evenly that we have normally no variation in the number of red cells, or in the type of red cells. When we have abnormal conditions we will find this picture reflected in the character of the red cells and their numbers, usually a lowered count and a lower hemoglobin content. We sometimes, however, find another picture, such as in pernicious anemia, where we have a lowered hemoglobin, a lowered red cell count, with a relative increase in the hemoglobin content of these red cells. Work which has been done of recent years has shown us that there is some factor present in the liver and other tissues which will influence the bone marrow to turn out normal red cells in the presence of the condition of pernicious anemia. Possibly we have some factor lacking which accounts for the blood picture in alimentary anemia. The cases which Dr. Blickensderfer discussed appear to have been abnormal from birth, that is, they were not typical of the normal infant—the low weight, and so on—and undoubtedly in these cases we had an abnormal bone marrow. Furthermore, we feel that in cases of this sort we are dealing with a bone marrow which has been influenced prenatally by the condition of the mother. The infant in utero depends upon the mother for nourishment. If the mother's diet has not been sufficient, why can we not have an improperly developed bone marrow, and an abnormal blood picture reflecting later, such as has been described?

Dr. Blickensderfer, (Closing): I wish to thank the gentlemen for the discussion of my paper. In establishing a diagnosis of alimentary anemia one must carefully go into the history of a case from birth. Many mothers are unobservant. The mother in Case 1 and Case 2 which I reported, may not have noticed or observed the pallor, which might have existed previously to the infection of measles. That, I do not know. She was questioned carefully on this point, but she was not very intelligent. In reviewing the literature on the subject of alimentary anemia, I have been very much impressed with a number of cases reported in the literature, in which I think the diagnosis of true alimentary anemia was not at all established. These cases had all kinds of infections, and I believe many of them were reported as true alimentary anemia, when they were really secondary anemias due to infection. I have tried to guard carefully against this error in reporting my cases, and I frankly admit that two of them are open to question; the other two, I think, are cases of true alimentary anemia.

OSTEOCHONDRITIS*

N. L. BEEBE, M.D.
FORT COLLINS

One evidence of advance in medicine has been the recognition and segregation of diseases according to their etiology or pathology. In the field of dermatitis, many specific diseases have been removed from the universal catagory, eczema. In nearly every branch of medicine, this process of segregation has gone steadily forward. In the study of diseases, the etiology of which is elusive, it may be necessary to group them for the present according to symptomatology, physical findings, or macroscopic pathology even as revealed by the x-ray. In this latter class apparently must be placed the osteochondritides.

In his resume of the osteochonditides, Joseph Buchman from the service of Dr. Royal Whitman defines osteochondritis as "a term applied to a non-inflammatory derangement of the normal process of bony growth occurring at the various ossification centers at the time of their greatest developmental activity," symptomatized by local tenderness and effort pain. Beginning with Muller in 1888, various writers have reported on disease of the different ossification centers. Better known among these men are Perthes, Legg, Calve, Osgood, Schlatter, Koehler, Scheuermann, Delahaye, Buchman, and later Larson and Johansson. It has become customary, though certainly at the expense of clarity, to name diseases after the discoverer; osteochondritis of certain ossification centers has received the name of names of those who first recognized it at this location. The following is a partial list and is repeated only to call attention to the fact that the condition is likely the same only at a different location: Legg-Calve-Perthes' disease, osteochondritis deformans juvenalis coxae, capital coxa vara, coxa plano, or osteochondritis of the femoral epiphysis; Osgood-Schlatter's disease, osteochondritis of the tibial tubercle; Koehler's diseases, osteochondritis of both the tarsal scaphoid

*Read before the Larimer County Medical Society, Loveland, Jan. 6, 1932.

and metatarsophalangeal joint; Larson-Johansson's diseases, osteochondritis of the patella; and Kienboch's diseases, osteochondritis of the carpal semilunar. It now seems more than probable that the etiological factors involved in the production of this disease in various locations are the same, also that any ossification center might be involved and that the general term, osteochondritis, would help to simplify and clarify this condition in the mind of the profession at large, retaining the name of the discoverer in conjunction, if desirable, for the disease in certain locations, as Osgood-Schlatter's osteochondritis.

Though the etiology is still obscure, a few facts have been gleaned. First, it is a disease of childhood and adolescence; second, trauma frequently initiates the symptoms; third, the macroscopic findings may be present without symptoms which would suggest, fourth, a systemic underlying cause. Fifth, the cardinal symptoms are (a) local tenderness and (b) effort pain. Sixth, the treatment is local rest. As stated previously, osteochondritis is a disease of childhood and adolescence occurring during the period of greatest growth of the area involved. It affects both pressure and traction epiphyses, the former undoubtedly with more serious consequence, but the latter is more likely to be overlooked. The ages at which involvement of the various centers may take place has rather wide limits. The approximate ages that have been given for those most frequently reported are as follows: Osteochondritis of the head of the femur, 3 to 10 (slipping of the epiphysis usually takes place after 10); of the body of the vertebra, 1 to 5; of the superior and inferior epiphyses, 10 to 20; of the tibial tubercle, 12 to 14; of the patella, 12 to 14; of the tarsal scaphoid, 3 to 15; of the metatarsophalangeal joint, 10 to 18.

Because of the serious end results of osteochondritis of the hip and spine, when unrecognized, special attention should be directed to them, but that the disease may affect any epiphysis subjected to strain should be kept in mind when looking for the cause of localized tenderness or effort pain. Pain in the hip or knee may suggest involvement of the head of the femur. Tenderness over the spine, or pain on bending or faulty posture, suggests disease of the vertebrae. It is possible that future study may show this condition responsible for certain types of postural deformity.

The following etiological theories have been suggested by various writers: Rickets, endocrine derangement, infection, and aseptic embolism. Buchman found normal phosphorus and calcium in a study of fifty cases, and normal potassium, sodium, and magnesium in a study of twelve cases. The bilateral occurrence in so many cases would make the infection and embolism theories improbable. Faulty bone metabolism, the result of dietetic or endocrine unbalance, plus continuing trauma might be worth considering, as rest seems to halt the process.

The pathological findings to date are inconclusive, having been mostly those of degeneration and repair depending upon the age of the disease. The x-ray findings of osteochondritis vary with the age of the process, showing irregularities of calcification, increased density or rarefaction, widening of the epiphyseal line, and later repair of the deformity with increased density.

That osteochondritis is of much more common occurrence than the literature would lead one to believe will probably be proved when the attention of the general profession has been called to it—as has been the case recently with tularemia and Malta fever. It is to this end that I report the following six cases of my own, seen in the past year, and two through the courtesy of Dr. Thad C. Brown, also of Fort Collins. Nothing in the history of these cases suggested an etiological factor, but a tentative diagnosis was made in three cases from the history and physical examination, the others from x-ray. Four cases, two of osteochondritis of the femoral head, one of osteochondritis of the tibial tubercle and one of osteochondritis of the second metatarsophalangeal joint were of long standing and are reported simply to show the end results of untreated or improperly treated cases. Of the acute cases, two are of the tibial tubercle, one of two years standing which has been cured by treatment; the other is a very early case



Fig. 1. Case 1. Bilateral osteochondritis of 46 years. Note flattening of the head of the right femur, slipping of neck to upper edge of acetabulum and associated destructive changes; note short neck and slight flattening of the head on the left.

now under treatment. The other two are cases of early osteochondritis of the hip, both under treatment.

Case 1. Male, aged 60 years. Family and past history, negative. At the age of fourteen the patient first noticed trouble in the right hip. He had been skating and was sitting on the ice working at his skates. On the way home from skating, a distance of two or three miles, the pain became so severe that he had to sit down and rest, then crawl part of the way home. Later the pain continued in the right hip. There was also some pain in the left hip. Following a diagnosis of sciatica, he was in bed for six months and treated for this condition. When he began to get around, he found that the right leg was shorter than the left and that he had limitation of motion at the right hip. At the present time there is a two-inch shortening of the leg and 75 to 90 per cent limitation of motion in all directions. Probably slipping of the epiphysis took place suddenly in this case.



Fig. 2. Case 2. Bilateral osteochondritis of 30 or 35 years. Note bilateral shortening of necks of femurs, flattening of heads and associated destructive changes of right.

Case 2. Male, aged 45 years. Family and past history, negative. Patient complains of pain and soreness in the right hip, extending down into the ankle and states that he has had a slight limp with some pain in that hip and leg since he was a child. He has been examined by many doctors and was told that his hip was out of joint. He used to have it replaced (?) with more or less relief, but the soreness would always recur. This patient does not remember any injury or sickness in early life. There is now a little shortening with 50 to 75 per cent limitation of motion especially of abduction and flexion, with constant pain.



Fig. 3. Case 3. Bilateral osteochondritis of tibial tubercles, healed lesions. Right operated, left healed without treatment. Note that there is less bony hypertrophy of left tubercle.

Case 3. Male, aged 23 years. Family and past history, negative. At the age of twelve this patient first noticed pain in the knees which he thought followed falling on the ice on his knees. This pain was increased by effort. Both knees bothered him at this age and until he was fourteen years old. About this time the right knee stopped paining, but the left continued to pain until the age of seventeen. During this period he was working for the railroad and was frequent-

ly on his knees. At the age of seventeen the left knee was operated, and he was in bed for twenty-seven days and on crutches for two months. Since that time he has had no trouble. Examination is negative except for an enlarged tibial tubercle. There is no disability.

Case 4. Male, aged 14 years. Family history: Mother died of brain tumor, father of influenza. Past history: Chickenpox, smallpox, influenza, and erysipelas. Tonsillectomy, six months ago. Patient complains of a little soreness in tibial tubercles of both knees, pain on bending the knees, especially on strenuous exertion. Sister says her brother walks like an old man. The pain and soreness began two years ago; the boy thinks it



Fig. 4. Case 4. Bilateral osteochondritis of tibial tubercle. Before treatment: Note appearance of tubercles as though they had been jerked from their attachments to the tibia, also especially rounded bony prominence at base of tubercle on both sides with irregularity and widened epiphyseal lines and increased calcification.

followed a fall on his knees from his bicycle. In the past two years the knees have hurt at intervals, and the pain is always worse following football, bicycle riding, and horseback riding. General examination, negative except for a slight systolic mitral murmur and tenderness over both tibial tubercles which are somewhat enlarged. After two months in plaster casts, all symptoms were relieved.

Case 5. Male, aged 12 years. Family and past history, negative. Patient complains of



Fig. 5. Case 4. After two months rest in plaster casts: Note increased density of bone, also that bony prominence at base of tubercle is continuous with bone.

soreness in the left tibial tubercle with mild pain on strenuous exercise, i.e. football, mountain climbing, and bicycle riding. These symptoms began three or four months ago, and, the boy thinks, came on following a fall on his knees. The pain has not been sufficient to keep him from school, but the mother says he has complained of soreness



Fig. 6. Case 5. Unilateral osteochondritis of tibial tubercle. Note thickened tubercle, also cell-like bony prominence at base of tubercle as in Case 4., but earlier. (Retouched.)

in that knee for three or four months and gave no particular thought to it. Examination reveals enlargement of the left tibial tubercle to approximately twice the size of the right. There is slight soreness to pressure. This patient is now under treatment.

Case, 6. Male aged 22 years. Patient complains of soreness at the base of the second toe on the right food. Past history: Patient first noticed soreness in this region at the age of seventeen when he finished high school. That year he had been playing a great deal of soccer and thinks that he injured his toe kicking the ball. For some months his foot was treated for a fallen transverse arch without benefit. This condition continued for three years, then x-rays were taken of the foot and trouble found with the bone. An incision was made in the top of the foot, and he was told that the bone was scraped. The wound healed up promptly, but the soreness has continued since. Examination: Localized soreness over the metatarsophalangeal articulation of the second toe of the right foot. Diagnosis: Osteochondritis.

Cases 7 and 8 are reported through the courtesy of Dr. Thad C. Brown:

Case 7. Male, aged 9 years. Family history, negative. Past history: Unusually healthy child until the age of seven. December, 1929, infected tonsils were removed. He had complained of slight pain in left knee previously. In January, 1930, some complaint of pain in the right hip on motion in any direction. Temperature, 99.2° at this time. Chest examination and tuberculin tests, negative. Condition improved promptly under treatment. No pain or limp until April, 1930, when there was slight limping on the left side. Case referred to Dr. Charles Sevier of Denver, Colorado. Diagnosis: Osteochondritis of the head of the femur. Treatment: Casts and bed rest for thirteen months. Marked improvement has been shown, but the patient is still under treatment, and no weight bearing is permitted.



Fig. 7. Normal tibial tubercle.



Fig. 8. Case 6. Osteochondritis of metatarsophalengeal joint of five years duration. Operated two years ago. Note destruction of joint surfaces.



Fig. 9. Case 7. Unilateral osteochondritis. Note flattening of the head of the femur with roughening and widening of epiphyseal line, increased density at the medial inferior border of the head with shortening and widening of the neck.

Case 8. Male, aged 6 years. Family history: Father, negative. Mother, past history of pulmonary tuberculosis. Past history: Digestive troubles during first year. Child underweight, but improved during second and third years of life. Tuberculin tests, negative. During this period he became a "dirt eater" at intervals. In May, 1930, tonsillectomy was performed because of infected condition. General physical condition improved markedly following tonsil operation. July 8, 1930, parents stated that they noticed occasional limping on the right side. No complaint of pain or history of injury. Case referred to Dr. Charles Sevier of Denver, Colorado, whose provisional diagnosis was "tuberculosis of the head of the femur." After observation diagnosis was changed to osteochondritis. Treatment: Cast applied and rest in bed. The case has improved steadily, but is still under treatment. Cast, removed after thirteen months. No weight bearing allowed.



Fig. 10. Case 7. After thirteen months under treatment.

Summary: Osteochondritis is a disease of childhood, affecting the ossification centers. The chief symptoms are local tenderness and effort pain. The etiology is still unknown. Early recognition of the disease, and rest of the center involved, cures the condition. Failure to recognize, or improper treatment, often results in permanent and marked disability. Especially is this true of the hip and spine.



Fig. 11. Case 8. Unilateral osteochondritis. Note flattening of the head, increased density along the epiphyseal line except at the medial and where there is rarefaction.

Suggestive lines for future study should include careful histories and, where facilities permit, blood chemistry, pathological study of tissue, and animal experimentation.

AMEBIASIS IN COLORADO—ITS SYMPTOMATOLOGY*

A. J. CHISHOLM, M.D.
DENVER

Amebiasis is a parasitic infection caused by the endameba histolytica, characterized clinically by intestinal disturbance consisting chiefly of intermittent attacks of diarrhea, abdominal pain, certain constitutional symptoms, and anatomically by ulceration of the intestinal tract and erosion of other tissues. Formerly this clinical entity was designated by a term which referred essentially to the colon as amebic colitis or amebic dysentery. Recently, however, the concept of the disease has changed because the nature of the infection has come to be understood. This infection is now known to involve not only the intestinal tract but also the skin, liver, joints, peritoneum, and other parts of the body. The term amebiasis is being adopted. Likewise, the concept of the geographical distribution of the disease has undergone a radical change. Formerly it was considered largely a disease occurring in the tropics. It is now known to occur frequently in the temperate climate as well.

In a recent survey made in Chicago in 1929, Williamson, Kaplan, and Geiger demonstrated that among 1,148 persons who were engaged in the handling of food, a surprisingly large proportion were found to harbor pathogenic amebae. There were twenty-seven carriers of the endameba histolytica and two active cases of the disease. This survey was made upon a group of employees in hotels and restaurants who were engaged in the handling of food, a considerable proportion of whom were foreign born. Further, there was reported in Chicago for the years 1921 to 1927, inclusive, thirty-three deaths from amebic dysentery. In 1908 there were 123 cases in the Johns Hopkins Hospital, and of these 122 were from the State of Maryland.

In 1925 the writer reported a series of four cases of amebiasis occurring in the State of Colorado. At that time the cases were considered a sort of a curiosity or an accident. In 1929 a series of twenty-four cases were reported. Analysis of the twenty-four cases showed that practically all of these had resided most of their lives in the temperate zone. In only one instance was there a definite history of the patient having lived in the tropics. Today the series has grown to sixty-five cases. All of these patients, with a possible few exceptions, have lived their entire lives in the temperate zone, indicating that amebiasis is now a disease encountered in the temperate climates as well as in the tropics.

Amebiasis is caused by the endameba histolytica, a unicellular micro-organism. Losch is generally credited as having given the first description of the organism in 1875, although Thadium, according to Craig, was the first to differentiate between the saprophytic endameba coli and the pathogenic endameba histolytica. The organism usually enters the body through the ingestion of raw vegetables which have been contaminated by excreta, or by the drinking of contaminated water. Another factor in the spread of the disease is through the medium of food handlers who, working with vegetables from contaminated soil, themselves become infected, and, if they become carriers of the disease, are likely to disseminate the infection. This is brought out by Williamson, Kaplan, and Geiger in their study which has already been referred to, in which were found twenty-seven carriers of the disease in a survey of 1,148 food handlers.

Amebae are generally ingested in the cyst form. Once in the colon, the organism finds a suitable habitat, and the cystic form changes into the motile form by shedding its capsule and assuming the characteristics of a true parasite. It lives on the tissue of its human host. It ingests and feeds upon the red blood cells, destroys and undermines the mucosa producing ulcers of the colon. These ulcers are generally discrete although they may become confluent. They are round or oval with raised soft edges and a depressed

*Read before the sixty-first annual session of the Colorado State Medical Society at Colorado Springs, Sept. 17, 1931.

grayish yellow necrotic base filled with soft debris.

The large intestine is essentially involved. The process causes an ulceration of the mucosa, the inflammatory process may involve the submucosa or all of the layers. In any case, the wall of the intestine becomes thickened. The characteristic lesion may be described as an hemorrhagic catarrh, consisting of ulcers with raised indurated edges protruding above the level of the surrounding mucosa. The centers of the ulcers are depressed with grayish yellow diphtheritic centers, while the surrounding mucosa is reddened, hyperemic, and hemorrhagic in appearance.

Not all persons are susceptible to the disease. There exists in certain persons an individual immunity to the disease and those persons are apt to become carriers. The onset of the disease is extremely variable; as a rule, it is slow and insidious. The patient complains of attacks of diarrhea, alternating with periods of constipation associated with a feeling of weakness and progressive loss of strength; anema develops. At other times the symptoms are referrable to the nervous system and are likely to suggest a neurasthenia. The patient complains of vague headaches, malaise, loss of strength, attacks of vague neuralgic pains in the extremities, poor memory, and insomnia. At other times the onset may be rather sudden with attacks of cramp-like pains in the abdomen which the patient is likely to attribute to an attack of indigestion caused by some particular article of food they may have eaten shortly before the onset of the attack, and which they seek to remedy by the use of a purgative. However, when the other symptoms appear while the cramps continue, they come to realize that there is something more at the base of their distress than an attack of indigestion.

In a typical case the attacks of diarrhea continue and are associated with severe abdominal cramps. The attacks of diarrhea may last days, weeks, or months. During this time the patient has soft liquid stools varying from five to forty a day. The stools contain blood, pus, and mucus. The loss of weight is progressive; also there is a progressive loss of strength. Sometimes there are chills, fever, headache, nausea, secondary anemia, sacral pain, and excessive perspiration of the hands and feet. Bowel movements are usually accompanied by a disagreeable griping in the abdomen. At times they are painful and are usually unsatisfactory to the patient, leaving him with the impression there was something more to come away. The patient becomes abdominally conscious; he becomes cognizant of the fact that there is something wrong with his interior. He is apt to have a sense of discomfort throughout the abdomen, especially in the left lower quadrant. The abdominal consciousness may change at any time and become painful. Sharp, cramp-like pains may occur in any part of the abdomen although they are usually identified with some segment of the colon. Sacral pain is common; it occurs as a dull, heavy, dragging sensation on the sacrum, at times involving the entire perineum. The symptom is very annoying; it may persist at night and interfere with his rest.

Physical examination commonly shows an alert, restless individual, anemic in appearance, with an anxious, apprehensive attitude. Examination of the abdomen shows a dimunition of the normal subcutaneous fat; tenderness is usually present and may be localized over the colon. The colon as a rule is spastic, palpable, and tender—rope-like to the touch. The blood pressure as a rule is low; there is an evident secondary anemia with leucocytosis and eosinophilia; the hemoglobin varies from fifty to eighty per cent. The red cell count varies from 2,500,000 to 3,500,000; the leucocyte count varies from 6,000 to 24,000; and the eosinophilia varies from one to four per cent. The pulse, temperature, and respiration may be increased. The stool is liquid in character and may contain blood, pus, and mucus. Proctoscopic examination may show a reddened, congested mucosa which bleeds easily and in which are seen discrete ulcers having raised edges and necrotic centers.

The amebae are thought to reach the liver by two paths: One possible path is through

the portal vein; the other is by direct extension through the peritoneal cavity. It is thought that in the direct extension method, the parasites migrate through the intestinal wall, through the peritoneum, and then through the capsules of the liver to lodge in the parenchyma where they set up a necrotic inflammatory process which results in abscess formation. The abscesses may vary from a few small miliary spots to the size of a closed fist. The liver abscess may be single or multiple. The diagnosis of liver abscess is not easy and may be overlooked. Some of the symptoms are pain, fever, chills, and a leucocytosis. The pain consists of a dull ache but may soon become sharp and stabbing in character. It is located over the liver, and like gall-stone distress may be referred to the right scapula. The liver usually becomes enlarged. Pain is usually elicited on pressure over the liver, the movements of the right side of the chest become impaired, and the right rectus muscle becomes spastic. On fluoroscopic examination, the right side of the diaphragm shows a marked impairment of motion.

Among the complications sometimes encountered, liver abscess is perhaps the most common. In a series of 119 cases reported by Fletcher, it was found in twenty-two per cent of his cases. This incidence is rather high; generally the ratio is much lower. Skin lesions sometimes occur; Heimberger reports a case of amebic infection of the skin occurring in a Chinese. Elsewhere I have reported two patients with amebiasis cutis. The lesions encountered were large swollen areas with raised indurated edges and necrotic centers. The joints are sometimes involved. Kofoid and Sweezey demonstrated the organisms in the joint structures of the lower end of the femur. One of my patients showed involvement of the ankle and knee joints which were swollen, reddened, and tender to touch. Amebiasis of the cecum may frequently simulate acute appendicitis. Perforation of the intestine may occur from a penetration through the base of a sloughing ulcer. Perforations generally occur near the cecum. Warthin isolated the organism from the testis of a man. Isolation of the organism from the teeth is not rare. In addition to the above complications, there sometimes occurs secondary infection of the colon which may be caused by parasites or bacteria. The conception of secondary infection is common enough in the case of pulmonary tuberculosis, but its application to disorders of the colon seems to be a new idea. Nevertheless, secondary infection of the colon does occur. Ganss recently reported a case of secondary bacterial infection of the colon complicating an amebic infection. He treated this with mixed vaccine prepared by the Solis-Cohen method in addition to the treatment for the amebic infection. Further, in addition to secondary bacterial invaders, there also occurs secondary parasitic invaders, especially by members of the trichomonas family.

Sigmoidoscopic examination shows an hemorrhagic ulcerated mucosa containing ulcers of a characteristic formation. It is necessary to demonstrate the amebae in a living and motile form in making the diagnosis. The sigmoidoscope is used to locate the ulcers or inflamed areas from which scrapings are made and from which search is made for the living ameba. Examination of the stool for ameba is not satisfactory in the opinion of the writer. Amebiasis is no longer a rare disease in Colorado and certainly seems to be increasing in frequency.

Summary

1. Amebiasis is a parasite infection caused by the endameba histolytica.

2. Within the past decade, the concept of the disease has changed from that of a localized infection of the colon to that of a systemic disease.

3. The geographical distribution of the disease is apparently undergoing a change; whereas, formerly it was considered a tropical disease, it is now known to occur frequently in the temperate zone.

4. It has been demonstrated that there are human carriers of the disease.

5. The amebae are usually ingested with contaminated food or water.

6. The common symptoms of amebiasis are diarrhea, loss of strength, loss of weight,

chills, fever, secondary anemia, abdominal distress, and sacral pain.

7. Among the complications that occur are liver abscesses, amebiasis cutis, arthritis, appendicitis, peritonitis, and orchitis. Further, there sometimes occurs secondary bacterial and parasitic infection of the colon already infected with the ameba.

DISCUSSION

Royal H. Finney (Pueblo): In giving this paper on Amebiasis in Colorado, its symptomatology, and diagnosis, the essayist has stuck to his subject, and in opening the discussion I do not want to wander.

There is no one in Colorado better fitted to write upon this subject than Dr. Chisholm. Much has been written during the past year on amebiasis, especially its treatment, but the paper you have heard covers every phase of prevalence and symptomatology, mode of infection, pathology, and complications. My experience also indicates how prevalent the disease is without the host having lived in a tropical or semi-tropical country. I can recall none that have lived in such surroundings except one who was in the army during the war, part of the time living in the south, and part of the time in Europe. Like so many of our infectious diseases, the carrier is one of the main obstacles. Even though health boards be quite adequate, how many physicians are reporting the known cases, much less the presence of symptom free carriers in all localities, unknown by anyone? I do not know how effective usual water supply disinfection is relative to this parasite, but I visualize how easily our raw food supplies, such as ordinary garden vegetables can be infested, and the question in my mind is why there aren't more people infected. Just as the typhoid bacillus wends its way from carriers, and sewage to various supplies for human consumption, so the endameba histolytica finds its host.

Symptoms are quite variable in some instances. One of my cases was an inmate of one of our Veterans' Hospitals as a result of aspergillosis affecting the lungs. Intestinal symptoms were so inconstant that amebic infection was not looked for. Later the abdominal symptoms led me to search carefully and a diagnosis of amebiasis was established, aside from the lung infection. Another case was established associated with diabetes, the first indication of ameba being a moderate diarrhea coming on rather slowly over a period of a week, some loss of weight and not accounted for by his usual diabetic routine, irritability, insomnia, and a general "rotten" feeling.

As the essayist has indicated, stool examinations alone may be somewhat disappointing. I recall several years ago a man showing abdominal symptoms simulating chronic appendicitis, tuberculous bowel, or suspicion of amebic infection whose stool after stool was negative, until following removal of the appendix which was normal, many parasites were found by ordinary stool analysis, and he has since been treated by many methods partially successful in eliminating them. I believe more care is required by the pathologist in searching for this parasite than in most any laboratory procedure. Stools must be fresh and warm, examined immediately after passing, and I cannot conceive of procuring good results in cases of specimens sent laboratories several hours or days old in fruit jars, milk bottles, and even perfume containers. Direct smears or scrapings from irritated or ulcerated areas in the lower colon are often much more satisfactory. There must be sufficient stool examinations supervised by competent observers. The use of the bed pan may seem rather cumbersome, but I believe ideal results can be had by sending specimens direct to the pathologist in a warm bed pan (not too hot) so the whole passage can be examined, the last portion being more important, the clinician previously seeing that the patient has not been taking oil of any kind, especially mineral oil, making such an examination very unsatisfactory.

I will not go into complications other than to say that in light of nervousness, loss of strength and weight, fever at times, skin lesions, and especially any gastro-intestinal symptoms I think of this infection ,and attempt to find it.

In conclusion let me stress, first, the importance of keeping in mind the liability of recurrence even though treatment has seemed quite adequate in a given case. Second, since treatment in many sections embraces the arsenicals and emetine to a great extent, let us not forget the toxic results that can occur in the susceptible, and the extreme danger that can result. Third, and what the essayist wants particularly to bring home, the importance of keeping this disease in mind, even here in Colorado, its importance as a cause of suffering and economic loss. I have received much help and suggestion from Dr. Chisholm during the past year, for which I wish to thank him publicly.

Paul J. Connor (Denver): Amebiasis is very interesting to me. I was in tthe tropics for three years, where I saw many cases in every stage of the disease. We should visualize the good results we are having in this country today in diagnosis and treatment. It will not be long before there is a concrete highway throughout Mexico and all the Central American countries to the Panama Canal. The tourist travel is growing and also with fruit and vegetable grower, in states that are semi-tropical, who ship vegetables in here. Take California: many fruits and vegetables are raised by the Japanese or Chinese, and in the south, Florida, and in Texas, a great many of these people are carriers. I have seen myself, since 1921, twenty-seven cases of amebic infection in Denver. The last case I had was last month, a lady whose husband is a foreigner, a chef in a large hotel. Whether this man is a carrier, I do not know. I want to check up to see if he is a carrier. I have found but one case of acute amebic dysentery. This child was eleven years old, came in for an operation for acute appendicitis. The nurse brought the stool in in a pus basin, and I thought it was amebic dysentery stool from the mucus and blood. I have seen one case of chronic amebic infection operated in Denver. The appendix was literally alive with amebae. In diagnosis of a liver abscess, Dr. Chisholm gave all the important symptoms, with the exception of one. I have seen many abscesses of the liver that were anterior. If they are anterior, there most always is a friction rub. I think we may classify it as amebiasis, instead of amebic dysentery. In the so-called colitis cases that we are dieting, we should take a smear, examine the stool, go up in the sigmoid with an applicator, have the slide warm and the miscroscope ready with warm stage, take some of the mucus, put it on the slide, and examine the specimen. Dr. Finney made a remark about the stool. I remember once a lady brought a one-half ounce vial of the urine, and brought a quart milk bottle

of stool. I told her it was enough stool for all the Laboratories in the United States to examine. I have them bring the specimen of stool in a heated bottle, place it in a heated sack, bring it to the office, and then I place it in the sink and get the temperature around 100° and run the water continuously over the bottle. I use low power and spot what I think are amebae. In the treatment of this disease I still maintain that the bismuth treatment is outstanding.

E. R. Mugrage (Denver): Dr. Chisholm and the men who have discussed this paper, have brought out very well points in connection with amebiasis. I would like to emphasize that amebiasis is a condition caused by an animal parasite, and that a positive diagnosis can only be made by laboratory examination. In common with many parasitic conditions, we cannot be certain of the causative factor until we find that factor, or one of its products. That is very characteristic of amebiasis. In the Colorado General Hospital for the most part these cases are ambulatory. They will come in complaining of diarrhea in the acute stages, or may give us a history pointing in that direction. We ask for a stool specimen, and as has been brought out we absolutely insist on a fresh, warm preparation, which must be examined immediately. I would like to emphasize still more what Dr. Connor brought out—warm preparation on a warm slide, and using a warm stage on the microscope. In the acute cases, there is no difficulty in making a diagnosis in a warm preparation, because these organisms are spectacularly evident. It is in the chronic cases that diagnosis is difficult, and unfortunately these chronic cases are the dangerous ones. They constitute the carriers, and if the carriers work in fields, in restaurants handling food, or in connection with water supply, they constitute the detrimental factor in the spread of amebiasis. Determination of the presence of the cystic form of the ameba, is a difficult procedure. Hegner of Johns Hopkins, Kofoid of California, James of Panama City, have devoted a great deal of time to this problem, along with other workers, and they have formulated in general a method for the determination of the cyst which is exceedingly important, but unfortunately quite difficult, requiring very careful study of the structures. Consequently, it is not an easy proposition to make a diagnosis in the chronic cases, and unfortunately this difficulty comes in the stage when we have the greatest danger in the dissemination of the disease.

G. H. Curfman, (Salida): I would like to ask Dr. Chisholm whether there are pathological lesions in any other part of the intestinal tract than the colon? Further, would like to ask him about the life habits of the amoeba histolytica. Does it require a saprophytic medium for its life cycle? If so, would he deem a side-tracking of the intestinal stream by means of an ileostomy of benefit in healing the lesions in the colon?

Dr. Chisholm (In closing): Answering Dr. Curfman's questions, I will say that the parasite apparently is confined to the colon, not to the small bowel, but I have no time to go into it. The parasite will not live in a saprophytic medium; so, therefore, in severe cases if a patient is put on a milk diet the milk will change the stool.

CASE REPORTS

AN ATYPICAL CASE OF OCULO-GLANDULAR TULAREMIA

F. E. PALMER, M.D., AND J. S. REIFSNEIDER, M.D.
STERLING

The oculo-glandular form of tularemia in all the reported cases seems to have followed practically the same course as regards to pathology and the mode of transmission. For this reason I would like to report a case in which the pathology was definitely different and apparently the mode of transmission.

Mrs. A. B. J., aged 40, of Peetz, Colorado, was referred to me July 19, 1930, on account of pain and swelling of her left eye. Eight days previously, at bedtime, she noticed a smarting and burning of the eye. The next morning upon arising, it was very much swollen and tender, and there was also a swelling in front of the left ear. In spite of treatment by the family physician for one week, the eye continued to grow worse. Examination showed a marked congestion and chemosis of the bulbar conjunctiva and a tense edema of both lids. There was also thin mucous discharge. The preauricular, parotid, and submaxillary glands were markedly swollen and tender. On eversion of the lids two ulcers were seen on the conjunctiva of the upper left lid. There was no ulceration of the lower lid, cornea, or bulbar conjunctiva. Her temperature was 103.2, and pulse, 94. She also complained of loss of appetite and inability to sleep. The patient definitely stated that she had not handled rabbits or ground squirrels, nor had she been around where they lived. She had no knowledge of any contact with ticks. However, she did state that she had a small dog which lived in the house and "that he is death on ground squirrels," every morning visiting a colony of ground squirrels located one and one-half miles from the house and killing them. She emphatically stated that she had not been near this portion of the farm for months. The diagnosis of tu-

laremia was made. Blood was taken and sent to Dr. E. R. Mugrage (University of Colorado Medical School) for an agglutination test. The report was returned negative for agglutinins for Bacterium tularense. At this time one of the ulcers of the upper lid was carefully treated with 10 per cent silver nitrate applications and the other ulcer left untouched. Hot applications of saturated boric acid solution for one hour four times daily were used and the eye was kept clean with boric acid wash. Ice packs were kept on the enlarged glands in an effort to prevent suppuration.

Within a week the chemosis of the bulbar conjunctiva and the edema of the lids had begun to subside, but two small ulcers appeared on the conjunctiva of the lower lid with a third one on the upper lid. The treated ulcer on the upper lid was healing while the untreated one was enlarging. I had left the one ulcer untreated in order to demonstrate the value, if any, of the silver nitrate. Applications of 10 per cent silver nitrate solution were now instituted to all the ulcers on the upper lid and to one of the two on the lower lid.

By July 28, the seventeenth day of the illness, the chemosis of the bulbar conjunctiva had almost disappeared, but the congestion was still marked and several nodules had developed in the bulbar conjunctiva near the limbus on the nasal side of the eye. The ulcers which had been receiving the silver nitrate applications were healing nicely, but the one remaining untreated ulcer was enlarging so at this time treatments were started to it also. Two days later several more nodules had developed on the nasal side of the eye and the ones first noticed were now considerably larger. The preauricular, parotid, and submaxillary glands continued to enlarge, but no fluctuation could be elicited. A blood specimen taken August 4 gave a strong positive reaction for tularemia in titers of 1-2000.

On August 7, the twenty-sixth day of the illness, a skin eruption appeared on the left side of the neck and cheek. In four days the eruption had spread well down on the back and chest; it later appeared on the legs. It began as a discrete, red, maculopapular eruption, later appearing as deep-seated pustules two to four millimeters in diameter, but at no time did they suppurate or crust. The eruption became confluent and the plaques thus formed exhibited a circinate, sharply defined margin. Its appearance at this time was much like a ringworm infection of the body. There were no subjective symptoms accompanying the rash, and involution occurred after six weeks leaving no scarring or pigmentation.

By the end of the fifth week of the illness the preauricular, parotid, and submaxillary glands gave definite fluctuation and were incised. A portion of the pus obtained was injected intraperitoneally into a rabbit. The rabbit showed no signs of illness one week after the inoculation. In order to obtain more infectious material for inoculation all of the nodules in the upper nasal quadrant of the bulbar conjunctiva were curetted, those in the lower nasal quadrant being left untouched. From the material obtained, a suspension was made in normal saline and this injected intraperitoneally into the rabbit. This second injection likewise proved innocuous.

By September 3, the fifty-third day of the illness, there was still a slight discharge from the incised glands. The ulcers in the palpebral conjunctiva and the curetted nodules in the bulbar conjunctiva were entirely healed. The white of the sclera was beginning to show through the congestion of the bulbar conjunctiva, but the uncuretted nodules were still prominent. They remained as the last evidence of the disease and were slightly perceptible when last seen on October 15, ninety-five days after the onset.

The mode of transmission in this case is atypical because there is no case on record in which tularemia infection has occurred through a carrier, yet here the house dog must have carried the disease from the ground squirrels to the patient. I have had two other cases of oculo-glandular tularemia since 1919 from this same locality, and in these two cases infection was traced to direct contact with ground squirrels. I might

add that this ease was seen by Dr. Edward Jackson of Denver during the third week of her illness, and he eoneurred in both the diagnosis and probable mode of transmission.

Another atypical feature of the case is the oeeurrenee of nodules on the bulbar eonjunctiva identical in appearance to those deseribed by Vail, Jr., as occurring on the palpebral eonjunetiva, with a eomplete absenee of nodule formation on the palpebral eonjunetiva throughout the eourse of the disease. It is possible that the pathology of the palpebral lesions was altered by the silver nitrate applications, though my two previous eases, mentioned above, received this same treatment with the same beneficial results but showed the typieal nodule formation on the palpebral eonjunctiva. While silver nitrate is in no way a specific for the lesions of tularemia, I feel that its use here deserves mention beeause of its definitely beneficial effeets as proved by a eomparison of the treated and untreated ulcers. No where in the literature is there reported any other form of treatment which had any effeet on the eourse of the disease. Sinee there is one ease on record in whieh exeision of the nodule caused an exacerbation of the disease, it becomes of some significance that the curetted nodules in this ease healed promptly while the uncuretted ones remained a month longer.

PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Downing Diphtheria

In an artiele "Downing Diphtheria" in the January Mid-monthly Survey, it is estimated that 1400 ehildren have been saved from death and 17,000 others spared a serious illness as a result of the three-year eampaign of the Diphtheria Prevention Commission of New York City. Dr. Charles F. Balduan, Direetor of the Bureau of Health Edueation, Department of Health, New York City, deseribes the intensive edueational work that has resulted in the steady immunization of children, a steady deerease of diphtheria eases and diphtheria deaths, the latter greater than at the time when antitoxin was introdueed by the Department of Health in 1895 and deaths were redueed one-half. As a result of the present eampaign, the deaths from diphtheria are less than one-fourth of the average before the eampaign began. Slips were prepared by the Department of Health for physicians to send to all their patients and arrangements were made for physicians to seeure toxin-antitoxin prepared in the Health Department's laboratories at eonveniently located drug stores. Private physicians performed about thirty per eent of the immunization treatments, leaving the City stations free to serve those who could not pay. Many physieians agreed to do the toxin-antitoxin treatments for a fixed fee of $2.00 where the parents were in moderate circumstanees.

It is estimated that the intensive edueational eampaign eost only about two cents per capita per year, a small amount when eompared with the great saving of life.

Education Contrasted with Service

In "Public Health Nursing" for November, 1931, Dr. O. P. Kimball of the Board of Education of Cleveland contrasts the results obtained in the smallpox and diphtheria prevention eampaigns in Cleveland and Detroit. In Cleveland the immunizations were earried on by the sehool physieians, and in Detroit the education of the parents was the featured aetivity.

Dr. Kimball eoncludes with the following statement: "By every means of measurement that I have been able to make, also, from personal eontaet with the sehools in eaeh system, I feel that as much or more is being aecomplished in Detroit than in Cleveland. True, the school physieians themselves are not doing the work, but the parents are having it done. The sehool physieian, nurses and teaehers have been teaching health at every school eontaet to the effeet that pupils and parents are gradually aeeepting the principle that this important business of future health is their responsibility; and beeause of this, more work is actually being done.

"This comparative study was not made

with the idea of criticizing the medical work in any school system. It was made solely for the purpose of estimating the results in terms of preventive medicine, of two totally different systems: Health education and medical welfare as school services.

"I feel sure that any community will respond to the principles of health education as Detroit has done. And, what seems very important, the parents and pupils will have the knoweldge and experience of taking care of themselves. Also, in so doing they maintain a greater self respect.

"The school nurse of the future will be a teacher of health. Instead of dragging a group of children in to have their teeth cleaned and a few extracted she will be teaching them how to keep their teeth clean and how to make use of the facilities which the community offers. Instead of spending twenty minutes scrubbing and cleaning a dirty little face with impetiginous infection, she will do the bigger and better job of taking the child home and teaching mother and child what they should do about this condition.

"The teacher of health must have an excellent training. The position is very important, demanding not only scientific knowledge, but knowledge of educational principles as well. Finally, she should be a clever, well-trained social worker in the sense that every successful nurse must be alive to the principles underlying social service.

"The natural growth from the type of school nurse who performs routine relief services to teacher of health will be understood and appreciated by every progressive community."

Function of Board of Health Changes

Police power activities of boards of health, once their entire function, have today dwindled to a minor importance beside the newer and more effective function of public health education, writes Allan J. McLaughlin, medical director of the United States Public Health Service in Public Health Reports in a discussion of the function and limitation of government in public health education. Resultant upon this shift and progress has been the dowering of the health officer with statesman's mantle as well as schoolmaster's ferrule.

Health Education

In the January, 1932, number of the "American Journal of Public Health" appears an article, "Marketing Mass Education" by Homer N. Calver and Bertrand Brown, which was read before the Public Health Education Section of the American Public Health Association at the Sixtieth Annual Meeting at Montreal. The entire article is worthy of careful reading by those interested in health education. Particular attention is called to the fact that the education of the adult has sometimes been obscured by emphasis on child health education whereas in many instances adult education provides society with its only opportunity for reaching the child. Much educational effort with children is nullified by adult example—by the example of the teacher or of the parent. If the principles of health taught in childhood are to be carried into adult life, the education of the individual must be continued throughout life.

It is also essential that much attention be given to establishing scientifically the value of our educational techniques. Money is spent on posters, pamphlets, lectures, motion pictures, and the radio, but we do not know much about the relative educational value of these techniques.

"Hope for the future lies in our emergence from the empirical stage. With the help of our scientific confreres, we must test by objective standards our long established practices. But while undergoing such self-analysis, and perchance resultant housecleaning, we cannot profitably sit idly watching the parade go by. The problem of mass health education here outlined calls for the inauguration of methods adequate to the new concept which has already been caught by commercial interests.

"If we are to reach the masses, we must

enlarge our view of the size of the job that confronts us. We cannot leave off with any temporary popularization of a few simple ideas. The task must be institutionalized. All phases of the health education movement must be utilized in concerted effort. New and effectual methods must be devised and continuously utilized in educating the whole mass of the population, generation upon generation, as to the importance of achieving, and the methods for achieving that summit of racial well-being which the researches of pioneers have made distantly visible. It is believed that museums of hygiene would serve as permanent centers for research and experimentation in health educational method and as a continual inspiration to reference sources for health educators. The concept of a national network of such institutions, serving in concert as a far flung, permanent and living force for the dissemination of health knowledge among the masses, is noble in purpose and inspiring to contemplate."

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

EDITOR: J. J. WARING, M.D.

An event of the greatest possible importance to the medical profession of the state of Colorado has been the acquisition by purchase by the Trustees of the Medical Society of the City and County of Denver, of the Medical Library of Professor Herbert M. Evans of the University of California. It was made possible largely through the generous donation of $5,000 by lay friends of the profession. Further details of the important books in this library will be given in this column soon.

The following Association items have been presented to the Medical Library:

From Mrs. W. D. Wrightson, daughter of General Gorgas:

Manuscript of her father's book, "Sanitation in Panama."

Photograph of General Gorgas chosen by the Smithsonian Institution as the best.

Fourteen letters from Walter Reed to General Gorgas written in the years 1901-1902.

Small picture of Dr. Reed, undated, but taken when he was a young man.

From Dr. Franklin H. Martin, Chairman of the Gorgas Memorial Institute:

Copy of "William Crawford Gorgas," by Marie D. Gorgas and Burton H. Hendrick.

Short biography entitled "Major General William Crawford Gorgas, M.C., U. S. A.," besides numerous pamphlets relating to General Gorgas.

Dr. W. W. Keen personally presented the following:

Skeat, "Etymological Dictionary of the English Language."

Crabb, "English Synonyms."

Dr. William S. Thayer personally presented "Osler and Other Papers," his own book.

BOOK REVIEWS

Surgical Clinics of North America. (Issued serially, one number every other month.) Volume II, number 2. (Lahey Clinic Number—April, 1931). 248 pages with 88 illustrations. Per clinic year (February 1931 to December 1931.) Paper, $12.00; Cloth, $16.00. Philadelphia and London: W. B. Saunders Company.

The April number of Surgical Clinics of North America issued by the Lahey Clinic contains many papers of unusual interest. Of special interest is Dr. Lahey's personal article dealing with anesthesia. A paper of great interest to general practioners and surgeons is Dr. Richard B. Cattell's paper on "Treatment of Varicose Ulcer." Still another interesting and rather unique article in Dr. Everette B. Kiefer's paper dealing with the treatment of persistent vomiting. In this paper he discusses the relationship of blood chlorides and the CO_2 combining power as an index of persistent vomiting due to loss of blood chlorides. Dr. G. E. Haggart's papers dealing with "The Prevention of Painful Feet" with comments on treatment and "The Significance of Contracted Calf Muscles in the Mechanics of Foot Strain," both containing very interesting information.

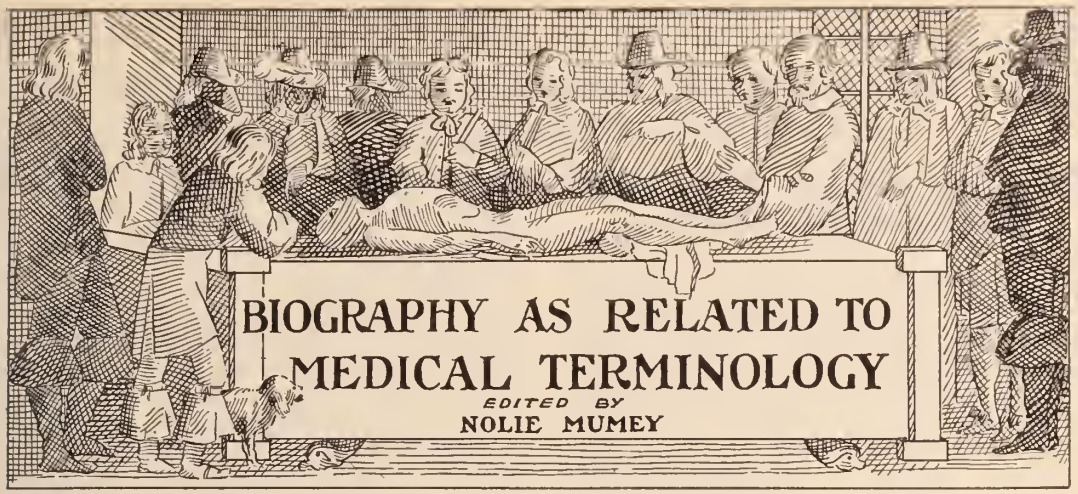
G. E. CHELEY.

Handbook of Physiology. By W. D. Halliburton, M. D., LL. D., F. R. C. P., F. R. S., Emeritus Professor of Physiology, University of London, King's College; and R J. S. McDowall, M. B., D. Sc., F. R. C. P. (Edin), Professor of Physiology, University of London, King's College, 19th edition. Illustrated. Philadelphia: P. Blakiston's Son & Company, 1930. 842 pages.

Professor Halliburton's successor at King's College has again joined him as collaborator in the thorough revision which constitutes the latest edition of this English text. Much new material has been added, but the book has been reduced slightly in size, largely by curtailment of histological details.

The book is a lineal descendent of Kirkes' Physiology, which went through thirteen editions under editorships of notables of St. Bartholomew's Hospital, prior to the first edition to be published under Professor Halliburton's guidance in 1896. With the thirty-two editions of this distinguished line of texts in hand, one might retread in an entertaining manner main steps in the advance of the science and arts of physiology since 1848.

E. H. BRUNQUIST,
Department of Physiology, University of Colorado School of Medicine.



LAENNEC

(Continued from February)

"From this moment I imagined that the circumstance might furnish means for enabling us to ascertain the character, not only of the action of the heart, but of every species of sound produced by the motion of all the thoracic viscera, and, consequently for the exploration of the respiration, the voice, the rale or rhoncus, and perhaps even the fluctuation of fluid extravasated in the pleura or pericardium. With this conviction, I forthwith commenced, at the Hospital Necker, a series of observations, which have been continued to the present time. The consequence is that I have been enabled to discover a set of new signs of diseases of the chest, for the most part certain, simple, and prominent, and calculated, perhaps, to render diagnosis of the diseases of the lungs, heart, and pleura as decided and circumstantial as the indications furnished to the surgeon by the introduction of the finger or the sound in the complaints wherein these are used."

Laennec experimented or tried out several substances such as paper, glass, goldbeater's skin and wood, the latter material he utilized for the perfection of his instrument. It has been told that the idea of the listening tube occurred to him while passing through the court of the Louvre where he saw some children playing on a long beam, one would put his ear at one end and listen while another tapped the opposite end. This observation gave him the idea of using some object for auscultation. The word stethoscope he coined from two Greek words meaning "the breath" and "to examine."

In May, 1816, Laennec presented his report on mediate auscultation to the Societe de l' Ecole. Two years later in June, 1818, it was presented to the Academie des Sciences, where it was received with little enthusiasm.

Laennec was fond of sports and took great delight in competitive rivalry. He was of mild manner, agreeable, and a profound Christian. In conversation he was rather lively and instructive. He was known for his remarkable kindness and extreme courtesy and loyalty to his country. He was, above all, a practical physician and had great knowledge of organic disease and an accurate diagnosis in the living body. His examinations were minute and extensive. He was without rival in diagnosing diseases of the chest.

Laennec was never greedy; he never practised medicine for the sake of money, although he earned as much as his simple tastes required. Most of his time was spent in gratuitous services to the poor rather than attendance on the rich. His gross income from all sources was perhaps never more than 40,000 francs a year.

Medical Eponyms:

Laennec's Cirrhosis
Laennec's Catarrh
Laennec's Perles
Laennec's Disease
Laennec's Rale
Laennec's Thrombus.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

DOCTORS OR BOOTLEGGERS?

THE unqualified statement that 90 per cent of the liquor prescriptions issued by physicians are "bootlegging prescriptions," made February 3 before a committee of the United States Senate by Dr. Arthur Dean Bevan, former president of the American Medical Association, was the subject of a special meeting of the Public Policy Committee. Members of the Committee outside of Denver were consulted by long distance telephone and a letter expressing indignation and protest on behalf of the Society was prepared and dispatched to Dr. Bevan.

Copies of the letter were also provided to the local press and were forwarded to the Secretary and Editor of the Journal of the American Medical Association with the request of the Committee for publication.

The letter is reproduced below:

"Feb. 5, 1932.

"Dr. Arthur Dean Bevan,
"122 South Michigan Blvd.
"Chicago, Ill.
"Dear Sir:

"The medical profession of Colorado was profoundly shocked to see you quoted in an Associated Press dispatch of Feb. 3, 1932, to the effect that 90 per cent of liquor prescriptions written by American physicians are bootlegging prescriptions. We were loath to believe that you had made such a statement before a committee of the United States Senate, but since no correction has appeared in the public press we must assume that your were correctly quoted.

"On behalf of the Colorado State Medical Society we therefore wish to protest as vigorously as we can against such ill-considered statements as that credited to you. Granting that there are charlatans within the medical profession just as there are in any other group of the citizenry, the statement that 90 per cent of the profession's prescriptions of alcoholic liquor are illegal is too preposterous to be worthy of argument.

"The quotation would have been laughable were it not attributed to one who in the past has been the recipient of many honors, including the presidency of the American Medical Association. This, to us, is the serious part of it, for the same statement made by one less prominent undoubtedly would have been committed to the wastebasket by the first journalist who read it. Any physician who has the least possible conception of the value of statistics must realize that the statement was merely the personal opinion of one who utterly disregarded facts.

"We believe that those who have reached high places in any calling, most particularly in the medical profession, should scrupulously weigh their contemplated public utterances against the facts, lest unintentionally they use their positions of influence to insult their colleagues, the great majority of whom are doing their best to maintain the profession on a high ethical plane of usefulness to humanity."

"Very truly yours,
"Committee on Public Policy of the Colorado State Medical Society:
"H. R. McKeen, Denver, Chairman; Harry S. Finney, Denver; W. W. King, Denver; B. B. Jaffa, Denver; James A. Philpott, Denver; George H. Curfman, Salida; Z. H. McClanahan, Colorado Springs; W. W. Harmer, Greeley; Carbon Gillaspie, Boulder; Edward Delehanty, Denver; Lorenz W. Frank, Denver; Mr. Harvey T. Sethman, Secretary."

MISSING NUMBERS OF COLORADO MEDICINE

THE editorial office of Colorado Medicine is attempting to assemble a complete file of Colorado Medicine from its inception in November, 1903. Three numbers are missing, and should any reader possess one or more of the copies he is willing to dispose of to the editorial office, word of their existence would be appreciated. The missing numbers are November, 1903 (Vol. I, No. 1); November, 1905 (Vol. II, No. 11); and September, 1906 (Vol. III, No. 9).

MALPRACTICE EPIDEMICS

MALPRACTICE suits against doctors appear to constitute a contagious disease, likely to reach epidemic proportions in times of economic stress. Modern history shows this to have been the case in the past. Current experience indicates that we are in the midst of another such epidemic.

It seems to be an axiom of preventive medicine that epidemics of contagious diseases are preventable. It should be an axiom of medical organization that epidemics of malpractice suits are preventable.

Our Committee on Medical Defense has set up

for the State Society a comprehensive plan of medical defense which possesses all necessary potentialities. This plan was published in the November and December, 1931, issues of Colorado Medicine and in the Medicolegal Digest, was presented verbally before the State Society at the 1931 Annual Session and at other times before meetings of nearly every county and district society, and finally has been reprinted in a small pamphlet and is being mailed to each member with his 1932 membership card at the time he pays his annual dues. The Committee on Medical Defense has said that hereafter no member may logically argue that he does not understand the plan.

Yet one more repetition of an extremely important point may be helpful. Do not wait until sued before you notify the Committee and your insurance company. Notify them immediately upon the slightest threat of a suit.

In these strenuous economic times there is a natural increase in the number of persons who will stoop to what amounts to blackmail in the effort to get money. There are many influences which encourage the disgruntled patient in his attempt to extort money from the physician. Few such persons ever expect to take the case into court, for they realize that a just court will throw the suit out and assess costs against the plaintiff. Rather, they hope by the threat of publicity and injured reputation to frighten the physician into a settlement out of court. Remember that the Medical Defense Committee forbids the settlement of any malpractice case out of court except with its written consent or with the consent of the attorney for the physicians' liability department of either the Aetna Life Insurance Company or the United States Fidelity and Guaranty Company.

Although it may at first seem to be a queer attitude to take, the Committee frowns upon our members taking part in the prosecution of malpractice claims against medical cultists. The reason is plain upon a little careful thought. Those who look upon a malpractice suit as the road to easy money consider that all "doctors" are alike. If newspapers print stories of successful suits against osteopaths or chiropractors, there is an immediate increase in the number of suits and threats against regulars.

The time is ripe for stamping out the present epidemic and for so uniting against such practices that there will be no future epidemics. Although the subject may seem remote to many readers, it is true that this "disease" strikes where least expected. Also, a malpractice epidemic in one corner of the state affects the pocketbook of every member in every part of the state, because the annual premiums on liability policies are determined by the "experience table" of the insurance company for each state. Colorado has had a good record, which is now threatened. Should the cost of defending such cases in our state go much higher, insurance premiums will increase alike for the man who has been sued and the man who has not.

SCHOOL OF MEDICINE ANNUAL CLINICS

THE UNIVERSITY OF COLORADO School of Medicine and Hospitals will hold its Annual Clinics on March 23, 24 and 25, 1932.

All doctors of medicine of Colorado and adjoining states are cordially invited to attend. There is no registration fee.

Special teaching and diagnostic clinics will be scheduled as follows:

Wednesday, March 23:
- General Surgery
- Pediatrics
- Oto-Laryngology
- Special Lectures

Thursday, March 24:
- General Medicine
- Urology
- Proctology
- Dermatology
- Tuberculosis
- Neurology

Friday, March 25:
- Obstetrics and Gynecology
- Orthopedics
- Ophthalmology
- Psychiatry

Forenoon clinics are scheduled from 9 to 12:30 o'clock. Afternoon clinics from 1:30 to 5 o'clock.

Guest Speaker

Dr. Leonard G. Rowntree of the Mayo Clinic will be the guest speaker on Thursday evening, March 24th, at 8 o'clock. Subject: "Blood Pressure States."

ANOTHER RISKY INVESTMENT

EVERY month for a considerable period it seems that this department has felt constrained to publish some sort of preachment admonishing our doctors to be wary of this or that new investment scheme. Perhaps it is a sign of the time, of the economic stress, that new "rackets" are continually developed in an attempt to lure away the physician's savings.

At the risk of being termed "calamity howler", we wish to warn against another group of schemes: the cheap, oh, so cheap, accident insurance policy sponsored by insurance companies with high-sounding names, companies with home offices too far from Colorado to bear investigation by the individual doctor.

One such eastern company has recently circularized a great many doctors. It even mailed out policies of insurance already filled in with the doctors' names, signed by the officers of the company, policies to go into effect immediately upon receipt of the ridiculously small premium at the home office. One Denver physician, fired with the thought of protecting his fellows, made contact with the insurance commissioner of the state where the home office is located. The commissioner reported that the company in question had total assets of $5,678.72. Yet the company's literature states that it has "thousands" of policies in force in "every state," each policy being a $1,000 policy.

Need more be said?

PUBLIC HEALTH ASSOCIATION

COLORADO members of the American Public Health Association are considering the advisability of organizing a Colorado Public Health Association, and are eager to obtain the reaction of physicians to such a proposal.

Accordingly the letter recently mailed to those in the state who already belong to the national organization is reprinted here. Doctors who care to comment on the proposal are requested to address the secretary of the local committee, at 531 Fourteenth Street, Denver.

To Active and Regional Members of the American Public Health Association in Colorado:

As you know, Colorado is to be host to the western branch of the American Public Health Association which meets in Denver June 9, 10, and 11, 1932. We all want this meeting to be just as successful as the two previous ones in Salt Lake City and Seattle and to utilize the interest that such a meeting will arouse in stimulating public health work in our state and local communities. Is it not the strategic time to organize a Colorado Public Health Association?

California has a northern and southern public health association. One wonders whether these associations are not responsible in part for the quality and amount of public health work being done in California.

If you feel that such an organization is needed in Colorado, will you please write us, giving a list of names of those in your community who would in your estimation be interested and any other suggestions. The organization could be perfected just previous to the western branch meeting in Denver in June.

Membership in the American Public Health Association would admit to our own state association without additional fee. Others interested might be enrolled as regional members at one dollar each. This would give us a small sum for postage.

Cordially yours,
A. L. BEAGHLER, M.D.,
S. R. McKELVEY, M.D.,
B. B. JAFFA, M.D.,
JESSIE I. LUMMIS, Secretary.
Members of the Local Committee.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Medical society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

BOULDER COUNTY

The regular monthly meeting of the Boulder County Medical Society was held at the Boulderado Hotel, Boulder, Thursday, January 14. Drs. C. D. Bonham and O. M. Gilbert presented case reports. Dr. Bonham presented a case of Chronic Leuchemia and Dr. Gilbert a case of Ruptured Heart.

Dr. J. R. Jaeger of Denver was the principal speaker at the meeting held February 11 at the Elks Club in Longmont. Doctor Jaeger read a paper on "Diagnosis of Brain Lesions by Air Injection."

MARGARET L. JOHNSON,
Secretary.

* * *

DENVER, COUNTY

The regular semi-monthly meeting was held February 2, 1932. Dr. K. F. Roehrig, Dr. T. R. Thorn and Dr. Wenzel Friesch were proposed for membership. Dr. Edna M. Reynolds and Dr. Charles B. Kingry were elected to membership.

Dr. H. W. Wilcox introduced Dr. Willis C. Campbell, orthopedic surgeon of Memphis, Tenn. Dr. Campbell gave an interesting talk, with moving pictures of various joints, particularly the knee, hip and elbow.

Dr. Campbell then introduced an unexpected guest, Dr. Hawley of Hartford, Conn., originator of the Hawley table. Dr. Hawley presented a few of his devices which are still in the making, among them a new bone plate.

There were 114 in attendance.

H. I. BARNARD,
Secretary.

* * *

EL PASO COUNTY

Dr. Gerald B. Webb delivered a paper on "The Prescription of Literature" at the regular meeting of the Society held February 10 at the Colorado Springs Day Nursery. One talking moving picture, entitled "Repair of Second and Third Degree Lacerations of the Perineum" and another showing the technique of suspension of the uterus were shown by the Petrolagar Company. Dr. C. P. McCracken was elected to membership.

W. A. CAMPBELL, JR.,
Secretary.

* * *

FREMONT COUNTY

The regular meeting of the Fremont County Medical Society was held in Florence January 15. Drs. E. C. Webb and Archie Bee of Canon City presented papers on post graduate work in Europe.

ARCHIE BEE,
Secretary.

* * *

LARIMER COUNTY

The Larimer County Medical Society digressed from its usual scientific program February 3 and

met socially with the Larimer County Medical Society Auxiliary at the Fort Collins Country Club.

The entire event was planned and carried out by the Auxiliary. Following the delightful banquet, Mrs. W. F. Brownell, president of the Auxiliary and toastmistress of the evening, introduced the speakers. Dr. M. J. Stewart, president of the Larimer County Medical Society, responded and was followed by Mrs. T. C. Taylor, Mrs Frank Carrol and Dr. Peter J. McHugh. All of the talks of the evening carried out the atmosphere of forty years hence with a mixture of mirth and dignity.

Musical selections and readings were given by Fort Collins artists.

C. E. HONSTEIN,
Secretary.

* * *

MESA COUNTY

The Mesa County Medical Society held its regular meeting at the La Courte Hotel, Grand Junction, February 16. Dr. Frank J. McDonough gave a paper on "Modern Treatment of Burns With Special Reference to Tannic Acid," Dr. E. S. Stong followed with a paper on "The Management of War Hospitals and War Surgery," and Mr. Robert Whipple, technician, closed the rogram with a discussion of "The Filterability of Bacteria."

V. T. DEWAR,
Reporter.

* * *

NORTHEAST COLORADO

Mr. C. H. Haines, attorney for the State Board of Medical Examiners, was guest speaker at the regular meeting of the Northeast Colorado Medical Society held Thursday, February 11, at Sterling. Mr. Haines spoke on "The Medical Practice Act."

A four reel film, "Traumatic Surgery of the Extremities," was shown.

E. P. HUMMEL,
Secretary.

* * *

OTERO COUNTY

The regular meeting of the Otero County Medical Society was held at the Harvey House in La Junta, February 11, preceded by a banquet. Twenty members attended and we were honored by the presence of the following guests: Dr. Frank B. Stephenson, President-elect of the Colorado State Medical Society; Dr. Gerrit Heusinkveld, Denver; Dr. E. D. Downing, Woodmen, and Mr. Harvey T. Sethman, Executive Secretary of the Colorado State Medical Society.

Dr. Stephenson especially reminded us of the excellent program that is being planned for the state meeting at Estes Park in September.

Mr. Sethman gave a general talk concerning state society activities, reminding us of the dangers of the present "epidemic" of malpractice suits and the work of the state committee in preventing them.

Dr. R. P. Jones of Fort Lyon explained thoroughly the present manner of admitting patients to the government hospital at Fort Lyon.

Dr. Downing gave us some interesting and valuable points concerning "common cold" infections and concerning the possibility of a parasitic origin of external cancers.

Dr. Heusinkveld then gave the principal address of the evening, his subject being "The Management of Difficult Labor." Using a pelvis and mannikin for demonstration, he cleared up a number of methods of handling complications that had become hazy to the general practitioner.

CHARLES E. MORSE, Secretary.

* * *

PUEBLO COUNTY

At the first February meeting of the Pueblo County Medical Society, held February 2 at the Congress Hotel, Dr. H. A. Black presented a paper on "Uterine Fibromyomata." A moving picture film entitled "Subtotal Abdominal Hysterectomy for Uterine Fibroid" was shown.

On February 16 a dinner meeting was held at the Congress Hotel. The program for the evening consisted of a Symposium on Anesthesia. Dr. T. A. Stoddard presented a paper on "The History of Anesthesia." Dr. A. Merriman discussed "Ether," Dr. J. Farley "Analgesia With Barbital Group," and Dr. George Rice spoke on "Spinal Anesthesia."

L. L. WARD,
Secretary.

* * *

WELD COUNTY

The regular business meeting of the Weld County Medical Society was held February 1 at Greeley. The special feature of the evening was a group of talking moving pictures presented by the Petrolagar Company.

TRACY D. PEPPERS,
Secretary.

COLORADO OPHTHALMOLOGICAL SOCIETY

November 21, 1931

Dr. Wm. C. Finnoff, Presiding

Vitreous Opacities Secondary to Hemorrhage

Dr. D. A. Strickler presented a man who a year previously had had a severe hemorrhage into the vitreous due to trauma. He had been given a full compensation award for loss of the eye, and now a year later he had 20/40 vision. The fundus details could not be seen. The interesting features were the premature award and the much better vision than one would expect from the poor view of the fundus obtainable.

Injury Involving Superior Oblique

Dr. Wm. H. Crisp presented a case of a woman with a paralysis of a superior oblique muscle following injury. The interesting feature was the rather rapid recovery.

In discussion Dr. Edward Jackson said that these traumatic muscle paralyses usually recover completely.

Advanced Pterygium

Dr. Wm. C. Finnoff presented a case of an extensive fleshy recurrent pterygium that he was treating successfully with repeated applications of the thermophore.

Glaucoma Simplex and Macular Degeneration of the Other Eye

Dr. Wm. C. Finnoff presented such a case, the outstanding points being the control of the tension with the corneoscleral trephine, and the interesting fundus picture.

Paramacular Degeneration

Dr. E. E. McKeown presented a case with a paramacular degeneration, the cause of which was variously ascribed by the members of the Society to trauma, focal infection, general disease, and an embolus.

Meningeal Cyst

Dr. Merritt B. Hook presented a case from the clinic of the University of Colorado Medical School. The patient had a soft fluctuant tumor mass under the right upper lid at the medial canthus.

In discussion Dr. F. R. Spencer said that the

location and appearance would point to the diagnosis of a mucocele of the ethmoid labyrinth or of the frontal sinus. He mentioned that it might be a dermoid.

Dr. Wm. C. Finnoff suggested the possibility of an orbital cyst and recommended analysis of aspirated fluid, and an x-ray after injection of lipiodal or sodium iodide.

False Macula

Dr. D. A. Strickler reported a case of convergent squint in which repeated subjective tests pointed to divergence. Such cases are described under the heading of false macula.

In the discussion Dr. Wm. M. Bane recalled having seen such a case at the University of Colorado Clinic.

Dr. Edward Jackson said that he explained such cases not on the presence of a functionally new macula, but rather on the basis of false coordination or unusual association.

Dr. Wm. H. Crisp suggested that in such cases if there was an area of increased function it was probably cerebral rather than retinal.

RALPH W. DANIELSON,
Secretary.

Obituary

Eugene H. Brown

Dr. Eugene Harold Brown, member of the Pueblo County Medical Society since 1912, died January 24 from pneumonia.

Dr. Brown was born in La Junta, Colo., in 1889. Following a preliminary education in Colorado, he attended Northwestern University, Evanston, Ill., and was graduated with the degree of Doctor of Medicine in 1911. He served an interneship at St. Mary Hospital, Pueblo, and thereafter practiced in Pueblo continuously with the exception of two years' war service. He saw active service as a field surgeon for more than a year in France and with the Army of Occupation in Germany.

He is survived by his widow, his mother, a sister and three brothers, all residing in La Junta.

Dr. W. J. Rothwell

Dr. William J. Rothwell, for many years an enthusiastic member of the Denver County Medical Society, died February 4 in Murray, Utah. He was ninety-three years old, and had since his retirement thirteen years ago, been residing at the home of his son, Dr. William H. Rothwell.

He was born in Canada, April 9, 1838. When he was a boy his family moved to Michigan. After a pre-medical course at the University of Michigan he attended the Jefferson Medical College in Philadelphia, where he was graduated in 1873. He first practiced in Placer, Idaho, but came to Denver in 1888. For many years Dr. Rothwell was a member of the faculty of the Gross Medical College before it was merged with the present University of Colorado School of Medicine.

Besides his wife he is survived by three sons, Dr. William H. Rothwell of Murray, Utah, Dr. Stephen Rothwell of New Bedford, Mass., and Walter Rothwell of Pomona, California.

R. E. Blackerby

Dr. Robert Ernest Blackerby of Tollerburg, Colo., member of the Las Animas County Medical Society, died February 5, 1932. He was 55 years old.

Dr. Blackerby was a native of Texas. He held academic degrees from the University of Texas and was graduated in 1899 from the Barnes Medical School of St. Louis. He had practiced in Southern Colorado since 1917, most of the time at Ludlow. He had been a member of the Las Animas County Medical Society since 1919.

He is survived by his widow, a son, and a daughter.

Dr. George P. Pipkin

Dr. George Phillip Pipkin, superintendent of Corwin Hospital, Pueblo, died January 27, following an illness of several months.

Dr. Pipkin was born October 15, 1873, in Hillsboro, Mo. He was graduated in 1902 from the Medico-Chirurgical College of Kansas City. Following a period of private practice in Missouri, he for several years was superintendent of a large Kansas City hospital. He served in the medical corps throughout the World War, and then moved to Pueblo, becoming superintendent of the Corwin hospital. He was elected to the Pueblo County Medical Society in 1921 and had been active in the organization since that time.

His widow and his brother, Charles M. Pipkin, took his remains to Kansas City for interment.

WOMAN'S AUXILIARY

SAN JUAN

On the evening of January 9, 1932, the members of the San Juan Basin Medical Auxiliary entertained the members of the Medical Society at dinner at the home of Dr. and Mrs. A. L. Burnett in Durango. Covers were laid for twenty-four guests. It was a most enjoyable affair. In spite of snow and cold weather, members were present from as far as sixty-five miles distant and others from fifty miles. Separate business meetings of the two organizations were held following the dinner. At this time the following officers were re-elected to serve the Auxiliary for the following year: Mrs. B. F. Walters, president; Mrs. R. L. Downing, vice-president; Mrs. J. C. Darling, secretary-treasurer. It was voted to hold our meetings on the second Wednesday of every other month, instead of quarterly, as before. This will afford us six meetings a year instead of four, and make our meeting dates coincide with those of the Medical Society. After a lengthy discussion, it was voted that our Auxiliary activities must still remain purely social in order to fulfill the purpose for which we organized.

The San Juan Basin unit now has thirteen members. We enjoy our meetings very much and look forward to them with a great deal of pleasure. The members of the Medical Society assure us that our organization has been directly responsible for increasing attendance at and interest in their meetings.

We have been saddened this winter by the deaths of the husbands of two of our members: Dr. A. J. Nossaman of Pagosa Springs having

passed away in Denver in October and Dr. H. C. Turrell of Durango passed away in Pasadena, California, in January. Our sincerest sympathy goes out to their sorrowing wives and families.

MRS. J. C. DARLING, Secretary.

* * *

OTERO COUNTY

The Otero County Medical Auxiliary has been meeting the second Thursday of each month, during the winter season, at the homes of the different members. We disband during the summer, as it seems next to impossible to get together during the summer vacation months. Sometimes we precede our meeting with a luncheon either at La Junta or Rocky Ford. At other times we meet in the afternoon. We have a business meeting followed by a social hour.

The members of the Otero Medical Society invited the Auxiliary to a dinner and social meeting at the Harvey House in La Junta on the evening of Jan. 7, 1932. After a seven o'clock dinner, Dr. Ralph Collins gave the address of the evening, on Public Health Work and Conditions in Czecho-Slovakia. Dr. Collins is a representative of the Rockefeller Foundation for Turkey, Bulgaria, and Czecho-Slovakia.

The Auxiliary is making two layettes at the meetings. One is to be given to be used in emergencies at the hospital in La Junta and the other to be used by the hospital at Rocky Ford.

There are eleven members in our Auxiliary, this season, coming from the towns of La Junta, Rocky Ford and Manzanola.

MRS. GEORGE SORENSON, Secretary.

* * *

THE MEDICAL STUDENT LOAN FUND OF THE DENVER AUXILIARY

It has become an annual custom for the Woman's Auxiliary to the Denver County Medical Society to replace the regular February meeting with a subscription bridge party usually held at the Daniels and Fisher Tea Room.

This party is a benefit to raise funds for the Medical Student Loan Fund for the University of Colorado School of Medicine. At the regular meeting in December, 1928, largely as the result of the efforts of Mrs. T. Mitchell Burns who was then president, a motion was passed that the funds of the Auxiliary be used for some educational or philanthropic purpose, and a committee was appointed to take charge of the benevolent fund, as it was called. This committee recommended that at least $100.00 be given annually to the Board of Regents of the University of Colorado Medical School to establish a student loan fund to be limited to junior and senior students.

One hears of the numerous loan funds and fellowships established throughout the country, but they are usually for art students. The medical profession requires a long course and entails a tremendous expense, and yet there are really few loan funds available. A student has all he can handle in studies during his course of preparation, and his time is so taken up, especially in the junior and senior years, that he is unable to give outside time to jobs by which students in other courses can help their finances. Students choosing the medical profession as their career are usually more serious in their intentions, have a higher ideal to work for, and those who struggle along on meager finances are usually the type the profession needs. Surely they deserve every consideration and help. Many reach their last two years with good standing only to find their resources dwindling. Their dilemma is to decide whether their years behind them are to be discarded or whether they are to obtain a loan to help them on their last two years before internship and the start on the realization of their work. Often a small sum is all that is needed to tide them over.

With the depression hitting the medic students as much as any one else, there has been a greater demand and far greater need for loans. Dr. Maurice H. Rees, Dean of the University of Colorado Medical School, reports that there were fourteen loans made this year; he definitely knew of the need of five more and did not know how many were obtained outside of the institution—though he knew there were some. Because of the increased demand, each loan was limited for the first time to $100.00 per student instead of allowing him the full sum needed as heretofore.

This work of the Denver Auxiliary in contributing to such a worthy cause cannot be praised too highly and gives them a most worthy purpose even if there were no other. The fund is too young to afford definite information as to how readily the sum is repaid, but it at least has started to grow.

This may give other county auxiliaries a suggestion for philanthropic work. If they have money at hand and so desire, they could contribute it directly to the Medical School or give (if they have not enough to start their own fund) through the Denver Auxiliary, thereby increasing this fund—full credit of course being given to the donating auxiliary. In this way, an auxiliary loan fund could be established to help our own profession; and who among us does not know of many outstanding and leading physicians today who struggled through great hardships, or who had to take years off at intervals between their courses in order to earn money with which to carry on toward the noble title of Doctor of Medicine?

AMERICAN BOARD FOR OPHTHALMIC EXAMINATIONS

The American Board for Ophthalmic Examinations will hold an examination in New Orleans on Monday, May 9th, 1932, at the time of the meeting of the American Medical Association.

Necessary applications for this examination can be procured from the Secretary, Dr. William H. Wilder, 122 South Michigan Avenue, Chicago, and should be sent to him at least sixty days before the date of tthe examination.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next written examination of the American Board of Obstetrics and Gynecology will be held in nineteen different cities of the United States and Canada at 2 p. m. on Saturday, March 26, 1932. The general, oral and clinical, examination will be held in New Orleans on Tuesday, May 10, 1932, immediately preceding the meeting of the American Medical Association. Reduced railroad fares will be available. For detailed information and application blanks apply to the Secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania.

Take this journal home to your wife.

WYOMING SECTION

President, R. H. Sanders, Rock Springs — Vice President, Herbert L. Harvey, Casper
President-elect, Frederick L. Beck, Cheyenne
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to the A. M. A.: George P. Johnston, Cheyenne — Alternate, Earl Whedon, Sheridan
Councillors: C. Y. Beard, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shaffer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan — Emory L. Jewell, Shoshoni — C. W. Jeffrey, Rawlins

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

THE NORTHWEST REGIONAL CONFERENCE

THE Northwest Regional Medical Conference was held at St. Paul, January 24, 1932, as a one day session, starting with an 8 o'clock breakfast in the St. Paul Hotel. About fifty physicians and lay secretaries from nine states attended this meeting. The following states were represented: Wisconsin, Michigan, Illinois, Minnesota, Ohio, Iowa, Nebraska, North and South Dakota and Wyoming. As a rule those who attended were presidents, editors, secretaries or members of the outstanding committees of their respective State Societies.

The subjects discussed in this interesting all day session covered Health Education, Hospital Conditions, Contracts, Health Publications and Compensation Insurance. The delegates were entertained at breakfast and lunch by the Minnesota State Medical Society and every courtesy was shown to them by Dr. E. A. Myerding, the efficient secretary of the Minnesota State Medical Society, and by the officers of the Ramsay County Medical Society.

It is a strange fact that the men who made up this earnest group are not, themselves, confronted with the dangers which they discuss. It is for the generations of the future that they are planning.

One of the great outstanding questions of the day is: how will the Government use these great and expensive hospitals that our congressmen are scattering all over the United States after the war veterans have passed on? In other words, in twenty years more the large majority of the men who fought the World War will be dead. Who will fill these extra hospitals then? And who will pay for them?

It will not be the taxpayers of today, but the taxpayers of tomorrow. Yet there were 182,000 empty beds in the private hospitals of the United States on January 1, 1932. It is time a halt should be called on this mad raid on the U. S. Treasury. It is time the present private hospitals were used in place of spending billions more to satisfy the politicians in the handing out of political plums.

AWAY WITH THE EYE CUP

"THERE is a fly in the ointment." That was true in the old days of open jars, but today most eye ointments are put up in sterile block tin tubes and the flies, bugs and germs cannot contaminate the ointments used. Nor can dirty fingers, with their infections, further contaminate the prescriptions so dispensed.

But how about the eye cup? The ash pit is the proper place to consign the entire stock now in the hands of the people of the world, and no more should be manufactured.

Why? Simply because these holders of filth and germs are used by thousands of patients who infect their eyes from eye cups.

Have your patients throw away the old eye cup. If they wish to use a boric acid solution, drop from a sterilized dropper a supersaturated solution made from the crystals of boric acid in place of the powdered boric acid. The powdered boric acid tends to promote a fungus growth, whereas a solution made from the crystals does not.

SUMMARY OF HEALTH OF CHILDREN IN MIDWEST GRADE SCHOOL*

NATHAN H. EINHORN, M.D.
MIDWEST

Numerous reports on the health of school children have been observed in the literature. Some of these have dealt with the incidence of tuberculin-positive children in school. Because living conditions at Midwest are typical of oil field settlements and because they present certain differences from those in larger communities, a survey similar to that in larger cities was undertaken.

In this survey, 510 children, ranging in ages from six to fifteen, with an averaging age of ten, were examined. Of this number 248 were boys and 262 were girls. Each child was subjected to a complete physical examination, a tuberculin test, and an x-ray of the chest. Facts regarding the family history, past history, and important symptoms were obtained by sending questionnaires home to the parents.

The Mantoux intracutaneous tuberculin test was used in this investigation. Since it was felt that the parents might resent more than one test on their children, the rather odd amount of .05 mg. of tuberculin and a control injection of normal saline solution were used. The reactions were read in forty-eight hours with the following results:

Redness of 5 mm. ..... 10 cases
Redness of 10 mm. ..... 6 cases
Redness of 15 mm. ..... 6 cases
Redness of more than 15 mm. ..... 10 cases
Total number—32 cases or 6.2 per cent.

After this test, it was possible to separate the negative reactions from the positive reactions. Hereafter in this discussion, the former will be designated as Group 1 (478 cases), and the latter as Group 2 (32 cases).

The analysis of the past history of the cases in these two groups were divided into two parts: one showing the relative frequency of the more common childhood diseases, and the other showing the relative frequency of injuries and operations.

The diseases which occurred the greatest number of times in both groups were measles (94.9 per cent in Group 1 and 96.8 per cent in Group 2), whooping cough (74.2 per cent in Group 1 and 68.7 per cent in Group 2), and chicken pox (63.1 per cent in Group 1 and 46.8 per cent in Group 2). These results are shown in Table 1.

TABLE 1, SHOWING COMPARATIVE FREQUENCY OF MORE COMMON CHILDHOOD DISEASES

	Group 1		Group 2	
DISEASE	Cases	Pct.	Cases	Pct.
Measles	454	94.9	31	96.8
Whooping Cough	355	74.2	22	68.7
Chicken Pox	302	63.1	15	46.8
Pneumonia	89	12.3	7	21.8
Scarlet Fever	77	16.1	7	21.8
Small pox	50	10.4	7	21.8
Diphtheria	13	2.7	1	3.1
Heart Diseases	13	2.7	0	0.0
Rickets	9	1.8	0	0.0
Typhoid fever	9	1.8	1	3.1
Chorea	7	1.4	0	0.0
Convulsions	6	1.2	0	0.0
Inflammatory rheumatism	5	1.0	0	0.0
Infantile paralysis	2	0.4	0	0.0

It was next observed that 27.8 per cent of the children in Group 1, and 21.8 per cent in Group 2, had been operated. The most common operation in both groups was tonsillectomy. In Group 1, 9.1 per cent of the cases, and in Group 2, 12.5 per cent, incurred fractures—the most common location being in the forearm.

TABLE II, SHOWING COMPARATIVE NUMBER OF CASES OPERATED AND INJURED IN GROUPS 1 AND 2

	Group 1		Group 2	
	Cases	Pct.	Cases	Pct.
Tonsillectomy	120	25.1	6	18.8
Appendectomy	5	1.0	1	3.1
Thoracotomy	4	0.8	0	0.0
Number operated	133	27.8	7	21.8
Fractured forearm	24	5.0	3	9.3
Number incurring fractures	44	9.1	4	12.5

Because of the fact that most of the local people are of the laboring class, and because with very ordinary wages many of them are supporting large families, an attempt was made to secure information with regard to the dietary habits of these children. It is admitted that some of the questions asked in the questionnaires had been given in order to mislead; nevertheless, some interesting facts were brought out by the investigation. These facts indicate a fairly low percentage

*Read before the Wyoming State Medical Society at Rawlins, Wyo., July 13, 1931.

of errors or insuffieieneies of diet among these ehildren.

All of these ehildren ate three meals daily, the average time being 7:00 a. m., 12 m. and 6:00 p. m. It is interesting to note the number of ehildren who eat between meals, the number who drink no milk, and the number who use eoffee (Table III).

TABLE III, COMPARISON OF DIETARY HABITS OF GROUPS 1 AND 2

	Group 1		Group 2	
	Cases	Pct.	Cases	Pct.
Eat between meals	76	15.8	12	37.5
Eat before retiring	102	21.3	10	31.2
Moderate eaters	298	62.3	25	78.1
Hearty eaters	175	36.6	7	21.8
Drink no milk	144	30.0	8	25.0
Drink 1 glass milk daily	102	21.3	3	9.3
Drink 1-3 cups coffee daily	71	14.8	5	15.6
No fruit for breakfast	181	37.8	16	50.0

The average diet of these ehildren eonsisted of the following foods:

Breakfast: Cereal, egg or pancakes, and a beverage usually eocoa or milk.

Luneh: 108 ehildren ate at the school eafeteria, where they obtained soup with erackers, a serving of meat and one vegetable, bread, fruit or other simple dessert and milk or eoeoa; 402 ehildren brought their own lunehes whieh consisted of sandwiehes and eake, eookies, or fruit.

Supper: Meat, potatoes, one or two vegetables, dessert, and a beverage.

At luneh time all of these ehildren had the privilege of eating in the eafeteria, or of purchasing milk or eoeoa if they brought their own lunehes.

A summary of the diets showed that not less than fifty-six ehildren had inadequate diets.

Sleep was found to be insufficient in 117 eases (24.4 per eent) in Group 1, and in fifteen eases (46.8 per eent) in Group 2.

An attempt was made to obtain a definite history of leading symptoms so that when abnormal physical signs were found, these could be eorrelated with the symptoms, and the proper deduetions made. Table 4 presents the data as obtained. The relation between some of these symptoms and physieal findings will be eonsidered later.

TABLE IV, SHOWING FREQUENCY OF IMPORTANT SYMPTOMS IN GROUPS 1 AND 2

	Group 1		Group 2	
SYMPTOMS	Cases	Pct.	Cases	Pct.
Earaches	116	24.2	10	31.2
Discharge from ears	31	6.4	2	6.2
Ringing in ears	27	5.6	2	6.2
Deafness	14	2.9	0	0.0
Aching Eyes	67	14.0	1	3.1
Inflamed lids	17	3.5	0	0.0
Styes	23	4.8	2	6.2
Frequent head colds	111	23.2	8	25.0
Difficulty in breathing through nose	62	12.9	3	9.3
Nosebleed	94	19.6	8	25.0
Nervousness	94	19.6	11	34.4
Headaches	108	22.6	3	9.3
Fainting spells	18	1.6	0	0.0
Dizziness	36	7.5	1	3.1
Frequent sore throat	66	13.8	4	12.5
Colds with persistent cough	49	10.2	1	3.1
Bronchitis	19	3.9	0	0.0
Hoarseness	48	10.0	4	12.5
Spitting blood	1	0.2	1	3.1
Night sweats	8	1.6	1	3.1
Asthma	2	0.4	0	0.0
Swelling of hands and feet	6	1.2	1	3.1

The physieal examination consisted essentially in examination of the head, neek, ehest, abdomen, and extremities. The results obtained have been plaeed in two tables. In Table V are found general observations on these cases, while in Table VI are the findings generally eonsidered in the syndrome of tuberculosis.

TABLE V, GENERAL PHYSICAL OBSERVATIONS IN GROUPS 1 AND 2

	Group 1		Group 2	
Physical Findings	Cases	Pct.	Cases	Pct.
Above normal weight	272	56.9	18	56.2
Average percent over weight		16.4		18.0
Normal weight	42	8.7	10	31.2
Underweight	164	34.3	4	12.5
Average per cent under weight		11.0		10.3
Impairment of vision	83	17.3	1	3.1
Unilateral strabismus	1	0.2	0	0.0
Bilateral strabismus	3	0.6	0	0.0
Nasal polyp	1	0.2	0	0.0
Tonsils small	35	7.3	9	28.1
Tonsils moderately enlarged	199	41.6	12	37.5
Tonsils markedly enlarged	124	25.9	6	18.7
Tonsil Tags	35	7.3	1	3.1
Carious teeth	206	43.1	15	46.8
Enlarged cervical glands	24	5.0	3	9.3
Moderate thyroid enlargement	23	4.8	3	9.3
Marked thyroid enlargement	4	0.8	1	3.1
Rachitic chest	13	2.6	1	3.1
Mitral regurgitation	4	0.8	0	0.0
Umbilical hernia	7	1.4	2	6.2
Inguinal hernia	3	0.6	0	0.0
Myxedema	1	0.2	0	0.0
Dwarfed hands	1	0.2	0	0.0
Contraction of Achilles tendon	1	0.2	0	0.0

It is true that there exists a great difference of opinion on the subject of infected tonsils; nevertheless, an effort was made to pick out cases which on inspection looked infected and which presented symptoms referable to tonsillar infection. The symptoms considered were underweight, anorexia, otorrhea, head colds, difficulty in breathing through nose, frequent sore throats or hoarseness, chest colds, heart disease, kidney disease and rheumatism. On this basis, at least eighty-eight cases in Group 1, and six in Group 2, were found to be infected. The percentage of children with normal weight is practically the same in both groups; however, the percentage of underweight is much less in Group 2 (12.5 per cent) than it is in Group 1(34.3 per cent). Eyesight was tested by means of Snellen's Test Types, and this constituted the only examination of eyesight. The percentage of children with carious teeth in both groups was approximately the same, and each child averaged three bad teeth. Thyroid enlargement was observed in the cases approaching adolescence.

The clinical observations that occurred more often in Group 2 than in Group 1, were D'Espines Sign, cervical lymph nodes, percussion and auscultation observations, while paravertebral dullness, underweight, and substernal dullness exceeded in Group 1 (Table VI).

TABLE VI, COMPARISON OF PHYSICAL FINDINGS IN TUBERCULOSIS

Syndrome in Groups 1 and 2

	Group 1		Group 2	
Physical Findings	Cases	Pct.	Cases	Pct.
D'Espine's Sign	339	70.9	23	71.8
Paravertebral dullness	220	46.0	19	59.0
Underweight	164	34.3	4	12.5
Substernal dullness	118	26.0	7	21.8
Cervical lymph nodes	24	5.0	3	9.3
Percussion observations	5	1.0	2	6.2
Auscultation observations	5	1.0	2	6.2

In Table VII, it will be noted that fourteen of the children in Group 2 gave histories of tuberculosis in their immediate families and seven of the same group gave such histories in regard to more distant relatives. Likewise, it will be noted that only eleven of the children in Group 1 gave histories of positive exposures in their immediate families and twenty-eight in the families of distant relatives.

TABLE VII, HISTORY OF EXPOSURE TO TUBERCULOSIS IN FAMILIES

	Group 1		Group 2	
	Cases	Pct.	Cases	Pct.
Positive in parents	11	2.3	14	43.7
Negative in parents	467	97.7	18	56.3
Positive in relatives	28	5.8	7	21.8
Negative in relatives	450	94.2	25	78.2

The roentgenograms of these 510 children were analyzed and an attempt was made to see how often certain roentgen observations (either alone or in combination with other observations) occurred among the cases in the two groups. The nine observations noted, together with the frequency of occurrence either alone or in combination with others, are given in Table VIII.

TABLE VIII, COMPARISON OF ROENTGEN OBSERVATIONS TOGETHER WITH FREQUENCY OF OCCURRENCE OF SIGNS EITHER ALONE OR IN COMBINATION WITH OTHERS.

	Group 1		Group 2	
OBSERVATIONS	Cases	Pct.	Cases	Pct.
Hilus calcifications	196	40.1	17	53.0
Increased markings	128	26.3	12	37.4
Enlarged bronchial lymph nodes	96	19.6	9	28.0
Peribronchial infiltration	65	13.5	2	6.2
Thickened interlobar pleura	35	7.2	5	15.5
Calcified bronchial lymph nodes	12	2.5	1	3.1
Thickened apical pleura	0	0.0	0	0.0
Parenchymal tuberculosis	0	0.0	0	0.0
SUMMARY—				
Cases with no signs	53	11.0	3	9.4
Cases with one sign	72	15.0	9	28.0
Cases with two signs	225	47.0	13	40.6
Cases with three signs	128	27.0	7	21.8

Contact with the parents of all these children was made possible through the school nurse. Errors in diet and physical defects, such as bad teeth or tonsils, and hernias, were pointed out to the parents and advice as to correction was given them. A special effort was made to teach mothers and fathers of tuberculin positive children the importance of correct living and of maintaining good health. In only one case was it possible to remove a mother with active tuberculosis to an institution in order to avoid further contact with her children. Follow-up records are now being kept at the school in order that the results of this investigation may be watched.

It might be interesting to state that the children in the Midwest Grade School have been well protected against communicable disease. Among the 510 children examined,

408 (80 per cent)have been vaccinated for smallpox, 102 (20 per cent) inoculated for typhoid fever, and 236 (46.2 per cent) for diphtheria. At first sight these figures seem high, but vaccination for smallpox was made compulsory by the local oil company for both employees and their families, typhoid fever inoculation was given free of charge, and diphtheria immunization was given by the State Health Department at a cost of fifty cents per child.

Summary

An investigation of the health of the 510 children in the Midwest Grade School has been made.

Among this total number there were thirty-two who gave positive tuberculin tests.

Obviously this is a small number from which to make accurate deductions. Moreover, it is admitted that positive tuberculin reactions in older children are of questionable diagnostic importance.

Comparative studies of the tuberculin-positive and negative cases have been presented. These include points in the history, habits, physical examination, family history, and x-ray studies.

Parents of children with physical defects or with signs and symptoms of tuberculosis were advised of these, methods of correction were suggested, and follow-up records are now being kept of the results. It is too early to report final results, but it is evident that it has stimulated efforts on the part of the parents interested to correct defects in order to put their children in good physical condition and to prevent the spread of tuberculosis.

WYOMING NEWS NOTES

NORTHWESTERN MEDICAL SOCIETY

The Northwestern Medical Society met in regular quarterly meeting at Basin. Twenty-one doctors, their wives and guests, sat down to a fine turkey dinner and enjoyed the hour of eating and visiting together. We always look forward to this part of our meeting just as much as the society formalities later. The doctors adjourned to the offices of Drs. Harris and the ladies enjoyed a good show.

Much of the medical meeting proper was taken up in discussion of local problems and the various matters that are of particular interest to physicians of the Big Horn Basin. Dr. Chester Harris presented specimens from an unusual case of uterine fibroid, recently operated.

For the information of our sister societies, we believe the following points have contributed to the successful meetings of the Northwestern Wyoming Society. First, recognition of mutual needs and the fact that what helps the other doctor helps you. We exchange lists of N. G. accounts, for instance. We always try to have something of interest at each meeting, holding the doctors of the town in which we meet especially responsible. During the winter months we meet in the more centrally located towns. We find the months of February, May, August and November usually better as to weather and roads in our basin country. We very much enjoy having the ladies present and know they enjoy the privilege and associations as well.

Dr. Victor Dakin is again attending to his practice in Cody after some time off, owing to sickness.

Dr. and Mrs. Evald Olson recently visited Billings, attending the Seth Parker show.

Dr. R. H. Kanable, superintendent of the Wyoming Tuberculosis Hospital, has returned to Basin after some time spent in holding tuberculosis clinics in the south part of the state.

On the same day recently, sons of two physicians were operated at the Whitlock Hospital at Powell, both having acute appendicitis. They are Keith Mills, son of Dr. and Mrs. F. A. Mills, and John Lewellen, son of Dr. J. D. Lewellen of Cody.

Dr. Rhea of Casper was among the several physicians appearing as a witness at the Cody District Court.

Dr. J. R. A. Whitlock secured judgment in Distric Court for the non-payment of a bill for services and hospital.

Influenza, of a mild type so far, has suddenly appeared in the Big Horn Basin, and is spreading rapidly, as usual.

F. A. M.
Powell, Wyo.

Child Labor in 1930

The 1930 Census shows for the twenty-four states and the District of Columbia for which figures are available, 277,038 children 10 to 15 years of age, inclusive, at work. In these same states in 1920, 377,028 were employed. The greatest decrease, 34 per cent, took place in the 10 to 13-year-old group. However, in 1930 there were in these states still 118,259 children of this age group gainfully employed. The number of employed children 14 and 15 years of age was 158,779, or 20 per cent less than in 1920. In the 16 and 17-year-old group, 361,447 were employed, a decrease of 4 per cent in the 10-year period.

The 277,038 children between the ages of 10 and 15, inclusive, reported as gainfully employed in 1930 constitute one out of every twelve children of this age group in the twenty-four states and the District of Columbia.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V March, 1932 Number 3

THE pathology of pulmonary tuberculosis is difficult to understand because a complex terminology has been created to "pigeon-hole" certain gross appearances of the tuberculous lung. Our mental pictures of tuberculosis pathology would be clarified were we to disregard the terminology in vogue at present and in its place interpret the whole process on the basis of inflammation and repair. All stages from acute inflammation to advanced repair may be found in different portions of one tuberculous focus. Such are the conclusions of Medlar and Sasano, who studied the pathology of pulmonary tuberculosis in successive stages in animals. Extracts from the article follow.

PATHOLOGY OF PULMONARY TUBERCULOSIS

Tuberculosis is often set aside as a disease of distinctive pathology. It is probably true that there is some chemical specificity in tuberculous infection but morphologically the lesions represent biological reactions corresponding to those of inflammation and repair observed in infectious diseases generally. Under certain conditions, for example, tubercle bacilli may incite abscess formation and under other conditions tubercle formation. Such terms as "proliferative type," "exudative type," "caseous pneumonia," "chronic fibroid phthisis," cause confusion. They do not represent "specific" lesions, but merely stages, combinations of lesions, or appearances in the course of pathological development.

The authors studied pathological changes produced in rabbits by a very virulent strain of a bovine tubercle bacillus, whose characteristics were known by previous studies. By varying the dosage of bacilli it was possible to control in a large measure the number of tuberculous lesions. As nearly as possible all other factors were controlled.

Pulmonary tuberculosis in the rabbit differs in some respects from the disease in human beings, but doubtless the fundamental pathological principles are the same in both species. Probably the chief reason for the differences observed in the rabbit and man, is that in man previous contact with tubercle bacilli has developed some resistance to the infection, whereas the experimental animals experienced their first contact with the bacilli on the day they were inoculated. Another factor is that the rabbits were given a single injection, which contained far more tubercle bacilli than any person would inhale or ingest at a single exposure to infection.

Forty rabbits were uniformly inoculated and killed at different periods. Numerous blocks of tissue were then studied microscopically.

Lesions found at Autopsy

The lesions found at various stages (illustrated and more fully described in the original article) were as follows:

After 48 hours

No gross lesions observed until after fixation. Then the organs were seen to be uniformly seeded with minute grayish spots which proved to be alveolar walls, congested and containing cellular exudate, consisting of mononuclear leucocytes and neutrophiles. An occasional mononuclear leucocyte or neutrophile was present in adjacent alveolar spaces. Tubercle bacilli difficult to find.

After 6 days

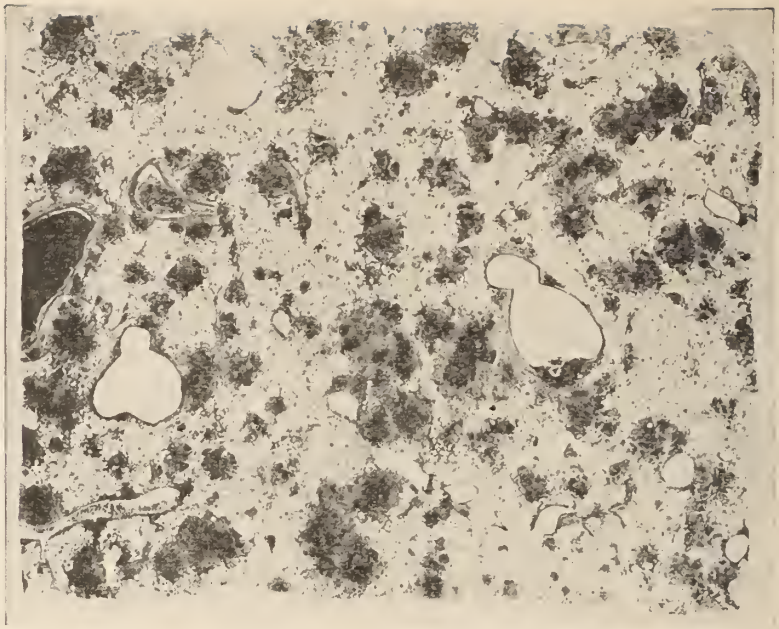
Lesions easily recognized in fresh specimen. They were discrete with normal intervening lung tissue and larger than those of 48-hour lung. Lesions were the result of increased congestion and of greater accumulation of leucocytes and neutrophiles. Alveolar walls were thickened. Adjacent alveoli were often filled with exudate of same cell types as in alveolar walls. No giant cells. No caseation. Tubercle bacilli more numerous.

After 12 days

Lesions were larger. Examination showed two types with gradations from one into the other:

(a) Typical mononuclear tubercles, composed wholly of mononuclear leucocytes. Adjacent alveoli contained from a few to many cells of this type. Tubercle bacilli present in small numbers.

(b) Abscess composed of neutrophiles in central portion and mixture of neutrophiles and mononuclear leucocytes in periphery. Adjacent alveoli often filled with mixture of neutrophiles and mononuclears. Bacilli numerous. The lung at this stage had all gradations of lesions from (a) to (b). Tubercle bacilli became more numerous in the foci as these approached abscess type. Several abscesses showed a beginning erosion of bronchial or terminal bronchiole walls, with slight amount of inflammatory mass lying free. In the free exudate tubercle bacilli were easily found. Lung tissue normal except for lesions described. No caseation, no giant cells.



Lung 21 days after infection showing various types of lesions; abscesses, caseation and recent lesions due to "spread" by peripheral extension and by inhalation of exudate from ruptured abscesses.

After 21 days

Marked increase in size of discrete tuberculous lesions. Abscesses much larger, some undergoing caseation, others had eroded alveolar or bronchial walls. Contents of these abscesses were discharged into alveolar spaces or into bronchi or bronchioles. Lung parenchyma adjacent to lesions involved in the enlarging inflammatory process. Mononuclear tubercles rarely seen. No giant cells. Tubercle bacilli abundant in all lesions.

For the first time, definite extension of tuberculous process into previously normal tissue was seen. This extension had occurred in two ways:

(a) Focal lesions had enlarged and adjacent parenchyma had become involved, but major portion of lung tissue uninvolved.

(b) Extension had occurred as a result of rupture of the tuberculous abscess into bronchi or bronchioles. Inhalation of contents of ruptured abscesses caused involvement of new areas of lung. These were separate from the older lesions and were composed of small groups of alveoli filled with exudate. Alveolar walls surrounding these small foci appeared normal. New areas contained many tubercle bacilli.

From this stage on there occurred a continuation of the ulcerative process until eventually the lung became a solid mass of tuberculous tissue, and many of the lungs showed pyramidal areas of consolidation at their periphery, and at the apex of the consolidated mass, a tuberculous ulcer in a bronchus with considerable bacillus-laden exudate within its lumen.

"Conclusions

1. Massive pulmonary tuberculosis in the rabbit is dependent upon the rupture of pulmonary tuberculous abscesses into the bronchial tree and inhalation of the contents of these abscesses into the previously uninvolved lung tissue. It seems plausible that this is also the method of extensive dissemination of tuberculosis within the human lung.

2. The pathology of pulmonary tuberculosis is essentially a process of inflammation and repair. Interpreted upon the basis of inflammation and repair the complex pathology becomes greatly simplified and more easily understood.

3. The complex terminology used to describe the bizarre pathology of pulmonary tuberculosis is unnecessary and confusing.

4. The term 'specific' when used in connection with tuberculous lesions should be restricted to denote a biochemical, not a morphological specificity."

An Interpretation of the Pathology of Pulmonary Tuberculosis, E. M. Medlar and K. T. Sasano, Am. Rev. of Tuberc., Dec., 1931

It is with pleasure that we accept
The invitation of "Colorado Medicine"
To present some facts about bread
To the physicians of this region
During the coming twelve months

The
OLD HOMESTEAD BREAD CO.

2727 WEST 27th
DENVER

KELPIN
(White or Whole Wheat)

BUTTER KRUST **SCOTCH HEALTH**

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. B. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D., Univ. of Colo School of Medicine and Hospitals, Denver

COMING MEETINGS:

Colorado Hospital Association Quarterly Meeting—Thursday, March 10, 1932, at 12:45 P M. Children's Hospital, Denver.
Colorado Hospital Association Quarterly Meeting—Tuesday, June 7, 1932. Boulder, Colo.
Colorado Hospital Association Annual Meeting—Tuesday and Wednesday, November 8 and 9, 1932. Colorado Springs, Colorado.
Western Hospital Association Annual Meeting—June 9, 10 and 11, 1932. Utah Hotel, Salt Lake City, Utah.
Mid-West Hospital Association Annual Meeting—June 2 and 3, 1932, St. Louis, Missouri.
Texas Hospital Association Annual Meeting—April 8 and 9, 1932, Dallas, Texas.
American Hospital Association Annual Meeting—September 12 and 16, inclusive, 1932, Detroit, Michigan.

* * *

EDITORIAL NOTES

THE PRIMARY policy of both the Colorado Hospital Association and the American Hospital Association is to promote the interests of the individuals and institutions belonging to these groups. In order successfully to carry out such intents and purposes, it is necessary for the officers of the organizations to know in what channels the members of these two associations wish their activities to be directed. We can only do this by having you inform us of your problems and special interests. In this connection, the officers of the State Association have requested several times that you send in your suggestions, so that a constructive program might be inaugurated which would be of benefit to the greatest possible number of its members. Such appeals have received little attention from the hospitals throughout the state; and the officers of the Colorado Hospital Association are again urging each hospital administrator to offer suggestions along the lines which would be of greatest benefit to him in particular.

In the Hospital Association column of the last issue of this journal, the major objectives of the American Hospital Association were listed, but neither the American Hospital Association nor the Colorado Hospital Association wishes that the local problems be ignored in our efforts to carry out the program of the national group. Won't you, therefore, please write and tell us what phases or problems of hospital administration you would like to have presented at the meetings during the year?

ON THURSDAY, February 10, the regular quarterly meeting of the Colorado Hospital Association will be held at the Children's Hospital of Denver. The Program Committee is arranging an interesting program; and our hosts, the officers of the Children's Hospital, have invited us to be their luncheon guests.

It has been several years since the Association has met at the Children's Hospital, and we hope that every member will make a special effort to attend this meeting. A special feature of this occasion will be an opportunity for the members present to inspect the new Nurses' Home of the Children's Hospital, which is considered one of the finest in the United States.

JOIN YOUR HOSPITAL ASSOCIATION

WM. S. McNARY
Chairman: Membership Committee, Colorado Hospital Association

ACTIVE personal membership in the Colorado Hospital Association and in the American Hospital Association is open to all doctors who are members of the medical staff of any hospital admitted to the registry of the American Medical Association, as well as to superintendents and their assistants, trustees, or any persons exercising these functions under other designations.

In addition, associate personal membership is open to heads of any executive, administrative, or educational department of

PRINTING IS THE CORRECT PRESCRIPTION

for the apathetical condition of the Doctor's, Hospital's or Sanitarium's Business.

¶ The judicious use of correct stationery, a tactful reminder, an engaging booklet or an illustrated prospectus will do much to restore the public's interest in your practice or institution. We shall be glad to submit plans for the development of any or all of these ideas.

THE MILES & DRYER PRINTING COMPANY

1936-38 Lawrence St. DENVER Telephone KEystone 6348

MODERN AMBULANCE SERVICE *for* MODERN NEEDS



AMERICAN AMBULANCE CO.
YORK 0070 • 1860 DOWNING ST • DENVER, COLORADO

STEADY-SAFE REFRIGERATION



Simplified Refrigeration

With the

SERVEL HERMETIC



THE WINTER-WEISS CO.

10 So. Broadway Denver

EXPERT REFRIGERATION SERVICE

Graduate School *of* Medicine

THE TULANE UNIVERSITY OF LOUISIANA

Approved by the Council on Medical Education of the A. M. A.

Post graduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the

DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

BOTULINUS
(Food Poisoning)
ANTITOXIN

Human Rabies Vaccine 14+21 Injection Method
We Supply Municipal Hospitals

A. A. HERMANN, D.V.S.
Small Animal Veterinarian
3854 Federal Blvd., Denver. **GAl. 0500**

The Best Tonic for Your Convalescent
A PUPPY FROM HERMOSA KENNELS
5495 Federal **GAl. 0830**

"STORM"



"Type N"

The New "Type N" Storm

SUPPORTER

With long laced back and low extension upon hips; The reinforcing band attached in front at median line, also fastened in back. Hose supporters instead of thigh straps.

TAKES PLACE OF CORSETS

Gives perfect uplift and is worn with comfort and satisfaction. Many variations of the "Type N" Belt provide support in Ptosis, Hernia, Obesity, Pregnancy, Sacroiliac Strain, etc.

Each Belt Made to Order
Ask for Literature

KATHERINE L. STORM, M.D.
Originator, Owner and Maker
1701 Diamond St. Philadelphia, Pa.

the hospital or to any member of any board or organization promoting hospital or health work. This statement is made to make clear the membership regulations to any who may have any doubt regarding the qualifications necessary for membership in the Colorado and American Hospital Associations.

Membership in these organizations is almost indispensable to the active hospital executive and is of great value to all those connected with hospitals in any advisory or administrative capacity. The fees which entitle all eligible persons to membership in both associations are so small and the privileges, and advantages of such membership are so many, that those hospital executives who are not members at present may well pause to consider what they are missing.

It is generally conceded that few persons achieve a place of eminence in their professions without taking advantage of the accumulated wisdom of those who went before them and of their contemporaries in their chosen fields. Many problems arising constantly are new to each of us as individuals, but very few problems in the hospital field are so new in principle that others have not solved them before us. Perhaps the old solutions can be improved upon, or better ones devised, but few there are who will gainsay the fact that the better solution is generally more easily and logically arrived at if one has knowledge of how others have handled similar situations.

I have heard more than one man say upon returning from a convention trip that it was worth the time and money if only to make him content with his own lot, and much could be said along these lines, since however rocky the road we travel seems, there are usually many others whose way is rougher. Membership in thte hospital associations will show you many ways to smooth the path you must travel.

The Colorado Hospital Association needs the active support of all eligible hospital workers in the state. We in the association sincercly believe that there are many others who would be greatly benefited through the associations that such membership provides.

THE GOLDEN PLUNGE

OPEN ALL THE YEAR AROUND

The Clean and Sanitary Swimming Pool

For Ladies and Gentlemen

Delightfully Warm and Pleasant in Coldest Weather

Thirty Minutes from Denver on Fine Highways

Grant Churches, Manager Phone Golden 266

TAYLOR-MADE
Kenlastic
REG. U.S. PAT. OFF.
CORSETS

ARE MADE TO SUIT EVERY NEED FROM THE LIGHTEST WEIGHT GIRDLE TO THE HEAVIER SURGICAL CORSET

ABDOMINAL BELTS WITH CORSET BACK

SPINAL CORSETS WITH PELVIC STEELS AND SHOULDER STRAPS

A NEW KENLASTIC SEAMLESS STOCKING IS MADE WITH EXTENSION HEEL

CHAS. B. E. TAYLOR

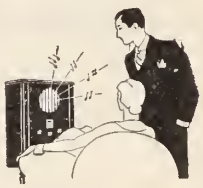
ELIZABETH KENDRICK TAYLOR

204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

Aboard the

ARISTOCRAT

Luxury!



Radio Reception

In addition, the Lounge Car offers the comforts of detached chairs, inviting divans, observation platform enclosed in glass, writing desk, card tables, a library of current periodicals, late newspapers, soda fountain and a buffet serving soft drinks, sandwiches, coffee, smokers' supplies.

The Aristocrat
(NO EXTRA FARE)

Lv. Denver . . 4:00 p. m.
Ar. Omaha . . 6:30 a. m.
Ar. Chicago . . 7:45 p. m.



Burlington Route

RESERVATIONS

901 Seventeenth St. Phone Keystone 1123
S. R. Drury, General Agent
F. W. Johnson, Ass't General Agent
Denver

We believe that your hospital will benefit in direct proportion to the interest you take in the affairs of the association, and we wish to extend to you a cordial invitation to join our group. Ask any member of the association or write directly to the executive secretary for further information.

NOISE CONTROL OR ELIMINATION AND PREVENTION OF NOISE IN THE HOSPITAL*

ROBERT B. WITHAM.

On approaching any hospital from a half to two blocks distant, we are usually confronted with a marker which reads something like this—"Hospital, Quiet Zone." I wonder what the thought of the average individual is on reading this sign, providing he ever reads it. Certainly it seems to me that in most cities an improved wording could be used that might really mean something instead of "just another sign."

It is a difficult, if not an impossible, undertaking to cover the subject "Noise Control or Elimination and Prevention of Noise in the Hospital" in fifteen or twenty minutes. During the past week I completed reading a 308-page report entitled "City Noise," the official report of the Noise Abatement Commission of New York City, covering an extensive study and survey made of noise, its effect, and possible control. This report is well worth the reading of every hospital executive. I may go further and say it is well worth the reading of each individual employed in a hospital.

The subject of noise involves a great deal more than we, as individuals, conceive on first thought. Noise as generally thought of is looked upon as a disturbing or unpleasant sound. It is much more than this; it is one of Nature's greatest sciences. Those who live in large centers of population, such as New York City or Chicago, and who are obliged to spend much time daily in the downtown districts—especially in hospitals located anywhere except in the suburbs—have a better conception of what noise really is.

*Read at the annual meeting of the Colorado Hospital Association, Colorado Springs, Nov. 10-11, 1931.

DOCTOR!-- WE ARE HERE TO SERVE YOU PROMPTLY

Emergency Garments Carried at All Times

SPENCER CORSETS
and Surgical Garments
218 EMPIRE BLDG.
TAbor 6289

Conway's
FLORAL SHOP
1064 SO. GAYLORD
PEarl 0622

EASTER GREETINGS
March 27
We have unusual arrangements of plants and flowers for Easter to send to the children, wives and friends. Each order will be filled with individual care and thought.
We Deliver

LET
The WESTERN MESSENGER SERVICE
Run Your Errands



At your service, when you're in a hurry
Phone TAbor 5345
424 18th St.
Denver Colorado

MONTCLAIR TRAINING SCHOOL

FOR BOYS AND GIRLS

A Christian Home for boys and girls to which any child from 5 to 16 years is eligible. It is our endeavor to create a homelike atmosphere and to fulfill every need in the development of ideal childhood.

Boys are taught manual training, metal and leather crafts, physical culture, vocal and band instruction. Our Cubs and Boy Scouts develop character.

Girls are taught home economics and various household duties, vocal and band instruction. Camp Fire leadership will set an example of ideal womanhood.

Rates very reasonable. School endorsed by excellent references. Inquire Headmaster.

Phone YOrk 1765 7125 East Colfax Avenue Denver, Colorado

PENCOL
DRUG STORE

Denver's Leading Druggists

504 E. COLFAX YOrk 8300

BIOLOGICS—OXYGEN
PRESCRIPTIONS

At Night Call FRanklin 0041-W

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of
ORTHOPEDIC
APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.
Phone KEystone 2702
Denver, Colo.

Dr. Donald A. Laird, Director of Colgate Psychological Laboratory, Hamilton, New York, has made a scientific study of noise, its prevention and control as well as its results. His report too is well worth reading, particularly for the physician and the hospital administrator.

Since we are to talk about noise control, its elimination and prevention, it is worthwhile for us to know why it should be controlled. Many years ago research in the study of noise was undertaken by the late Wallace Sabine of Harvard who determined that clinical observation indicated that patients are more rapidly restored to health when protected from upsetting noises and the usual city din. Recent experiments demonstrated that noise causes or creates the fear reaction. We all know that the elimination of fear is of special interest to the physician for slight increase in the tonus of muscle volume has increased blood pressure, diminished the flow of digestive secretions, and produced paralysis of the intestinal tract. We know further that in making a basal metabolism test and in reading blood pressure it is absolutely important that we have a quiet chamber for the patient and that the patient be entirely relaxed since the stimulation of fear reaction by noise will yield readings that do not represent the patient's real condition, although it is significant that these fallacious readings may represent the conditions on which the patient has to go thru life. In the Colgate Laboratories it was recently demonstrated that even in the soundness of sleep the noise of a passing truck will raise the systolic blood pressure of the sleeper as much as 20 mm. without the patient's showing the least indication of having been awakened. It has also been noted that the galvanometer needle on a special hook-up for measuring muscle tension indicates a great increase in the tension of muscles from similar noises, when another sleeper in the same room coughs, or when a window on the same side of the building is slammed, though the sleeper is not awakened. It is a demonstrated fact that sleep does not prevent the fear reac-

NURSES
OFFICIAL REGISTRY

Established to Meet the Community's Every Need in Nursing

Hourly Nursing Service.
Under-Graduate and Practical Nurses Provided.
Positions Filled.

Information on all nursing service.

This registry is endorsed by the Colorado State Graduate Nurses' Association and the American Nurses' Association.

KEystone 0168

ARGONAUT HOTEL

THE RESTLESS BED-RIDDEN PATIENT
Can be calmed and interested with an aquarium of
LIVE BEARING TOY TROPICAL FISH

Rare and Interesting

Unusual and beautiful with the lure of color tones, the many forms of Tropical fishes hold never-ending fascination for the beholder. Not only in form and color, but even in habits of life are they an interesting study. These little creatures, having been acclimated to aquarium life and their usually minute size, make it easy to keep a collection within a small space.

LARGEST STOCK OF TROPICAL FISH IN THE WEST

Write for Price List

AQUARIUMS AQUARIUM SUPPLIES

AQUATIC VEGETATION

Large collection of Aquatic plants, enough to balance a 10-gallon aquarium, sent postpaid $1.75

CHAS. T. GORE

4524 DECATUR ST. GAllup 0410 DENVER, COLO.

SOME ONE HAS TO SELL THE BEST COAL
SO WE DO!
"L.M." Lignite quality Lump Coal. Tremendous heat. Very little ash. A great money and labor saving coal. We guarantee it. Why not try it. Oil coke 99 per cent pure. (Hotter than hot) $11.50 per ton. Other grades of coal at prices to suit.
Great Western Fuel & Hardware Co.
TA. 5353 Denver 633 15th St.

Office Phone M. 321 Res. Phone M. 4422-R
GEO. LOXAM
Surgical and Invalid Supplies
20 Independence Bldg.
COLORADO SPRINGS, COLO.
Physicians and Surgeons' office supplies, Surgical Braces and Supports, Operating Tables, Surgical Dressings, Enamelware, Rubber Goods, Laboratory Supplies.
Instruments Repaired
Trade discounts to Physicians, Surgeons

Rose Ballinger, Mgr.
U. S. MULTIGRAPHERS
Multigraphing
Mimeographing *Addressing*
Folding *Mailing*
Typing
711 Security Bldg. Telephone TA. 3003

THE TROWBRIDGE TRAINING SCHOOL
A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN
The Best in the West
Est. 1917
Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address
E. HAYDN TROWBRIDGE, M. D.
650 Chambers Bldg., Kansas City, Mo.

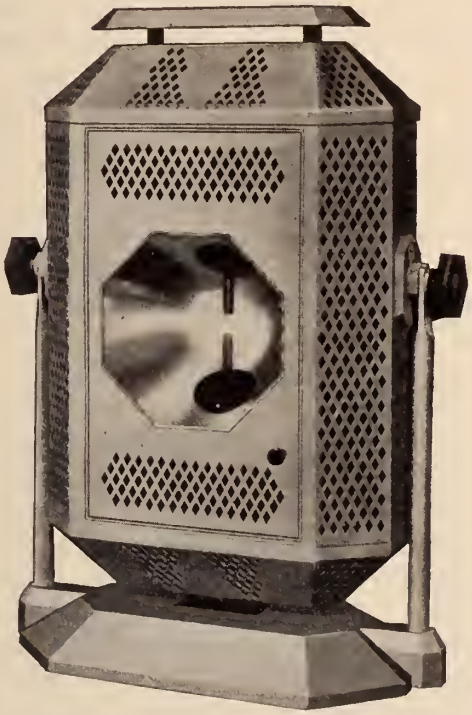
tion and obviously does not prevent the increased metabolic rate necessary to sustain the increased tonus or prevent the added work thrown on the cardiac system. I shall not dwell further upon the scientific reactions of noise upon the patient as this is purely a matter of medical science, and most of us know from observations in the hospital the unpleasant and disastrous results of noise to the physical well-being of patients.

Scientific investigation has proved that many of the present noises in hospitals as well as in other buildings can be eliminated. Science has further demonstrated that noise or sound travels rapidly—something over 1100 feet per second. Granting that we accept all that science has found regarding noise, I shall mention some of the means which may be taken in the average hospital to lesson this unpleasant feature.

Dr. Goldwater has said that perhaps 30 per cent of all justifiable complaints in hospitals—except in those of most recent construction—can be attributed to noise, and he firmly believes that unless you have a seriously ill patient you have little conception of what noise, which to you and me in everyday life is unnoticeable, really means to the patient just recovering from a general anesthetic. There can be nothing more distracting at this particular stage than the simple dripping of a water faucet. Sometime ago I saw, in a certain eastern hospital, a placard with the picture of a patient resting comfortably in her room and with the wording, "Patients know silence is golden." Nothing more true can be said in the hospital.

Now, how can we bring about the fulfillment of this wording? There are perhaps few of you who have not at some time had someone say, "The hospital sounds like a boiler factory," when perhaps in your own mind you wondered how such a statement could be made. Much of the prevention or elimination of noise must really be a program of education. This education must start at home, that is with the personnel, and as Dr. Goldwater brought out it will be difficult for the personnel to grasp the patient's

RENT or BUY the lamp producing *six distinct types* of radiation



Merely by changing carbons, each Eveready Carbon Arc Lamp produces radiations to meet the individual patient's needs. In addition, the lamp is easily adjusted to rapid or slow applications.

This lamp is manufactured in models suited for use at home, in the doctor's office, or for institutional use treating individuals or groups.

The table model illustrated may be rented at $7.50 per month, under a plan which permits you to apply such rentals to the purchase price. What better way to try the efficiency of such equipment?



Eveready Carbon Arc Lamps will be sold only upon recommendation of the doctor, who will give full instructions covering the lamp's use.

Bacteriological Department

THE DENVER FIRE CLAY COMPANY

DENVER DFC COLO. U.S.A.

BRANCHES AT SALT LAKE CITY, EL PASO, AND NEW YORK

NATURE'S METHOD
of Combating Intestinal Putrefaction



Change the flora by providing the right soil with a food —

LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)

Promotes the growth of normal protective germs.

Samples and literature on request.

The Battle Creek Food Co.
BATTLE CREEK MICHIGAN

for Quality
Zinc Etchings
Color Plates - Half Tones
Seeleman-Ehret
Photo Engravers
Tabor 2701
1950 Champa Street
Denver Colorado

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC
BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

viewpoint or feeling until they themselves have been seriously ill in a hospital. I suggest that at your staff conference, or administrative council, someone who has studied the question of noise bring before your personnel the results of noise and then thru a carefully developed program take steps to initiate means of eliminating or preventing it.

Of first importance in this program, no employee whose duties make it necessary for him to be on the floor with patients, should be allowed to wear shoes without rubber heels. To me there is nothing more distracting than the clatter, clatter, clatter of heels on a hard floor. Hospital personnel should realize the fact that patients are in the hospital to regain health and that they do not appreciate the morning conversation of nurses, interns, and physicians who, at least for the moment, may overlook the reaction of the patient.

Right here it might be well to mention that the prevention of sound can be overdeveloped. I recall a hospital where it seemed everyone was pussy footing about, whispering, tip toeing, and using many other overdeveloped efforts to produce quietness. These are equally as exasperating to the patient. The condition just mentioned is similar to a story I once heard. In a certain hotel a man who was very tired and nervous retired for the night, and the gentleman occupying the adjoining room, in the process of retiring, threw one shoe very definitely to the floor. This excited the first gentleman considerably and after waiting and standing the suspense as long as he could, he called to the man in the other room, "For God's sake drop the other shoe," whereupon he learned that his neighbor was a one-legged man. If all hospital personnel were to bear in mind the simple fact that silence is golden and follow that doctrine judiciously, hospital personnel and patients both would be better off.

Let us take an average hospital, for example, and follow the producers of noise from one section to another. Many operat-

(Continued on Page 28)

W.T. ROCHE
Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 YOrk 0901

18th at Gilpin

Phones KEystone 5287
KEystone 5288

Established
1874

The J. DURBIN SURGICAL SUPPLY CO.

1632 WELTON STREET DENVER, COLO.

QUALITY

Surgical Instruments, White Enamel Furniture, Hospital and Sick Room Supplies, Rubber Goods, Hearing Appliances.

Manufacturers and Fitters of Trusses, Elastic Hosiery, Abdominal Belts, Arch Supporters

We Rent Invalid Chairs, Beds and Infra Red Lamps

THE ROBINSON CLINIC

Cerebral diplegia ((Little's disease) is the most common cause of paralysis in children. Older views were that this condition resulted from a brain hemorrhage at the time of birth, but we now understand that the pathology of this condition is a degeneration of the ganglion cells, probably as the result of a severe toxemia, or anoxemia. Children who have brain hemorrhages at birth practically always die.

The chief symptoms of cerebral diplegia are, weakness of all muscles of the body, spasticity, and some mental degeneration. Walking and talking are the chief activities that are delayed. These children are more intelligent than is apparent, and we always find that mental development surpasses physical development.

The treatment consists almost entirely of training. Special exercises and a carefully planned teaching approach will accomplish wonders in many cases. This training should be started as early as possible in the child's life.

Medical therapy has little value, except where used to decrease rigidity. Atropine is the best drug for this purpose. Thyroid extract, which is used in many cases, is valueless. Most cases improve without any treatment, but without training, cannot go beyond a certain point.



CURTISS-WRIGHT FLYING SERVICE

Nervous and Mental Diseases
G. Wilse Robinson, Jr., M.D.
Assoc. Medical Director

G. Wilse Robinson, M.D.
Medical Director
1432 Professional Bldg.
8100 Independence Road
Kansas City, Mo.

Drug and Alcohol Addiction
Paul A. Johnson, M.D.
Internist

SAINT LUKE'S HOSPITAL

Under the Supervision of the Protestant Episcopal Church

MEDICAL, SURGICAL, OBSTETRICAL ORTHOPEDIC and PEDIATRIC SERVICES

225 Beds—32 Bassinets

Fully Equipped for Scientific Diagnosis and Treatment
Roentgenologist and Pathologist Constantly Available for Consultation

Established 1881 Pearl St. at Nineteenth
Denver





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

Montclair Sanitarium

A HOSPICE FOR THE ELDERLY

BEAUTIFULLY located near Colorado Woman's College. On the outskirts of Denver. Automobile highways and street cars near by, yet not obtrusive.

American home atmosphere. Devoid of objectionable institutional features.

We invite inquiries as to rates, facilities, etc., from qualified ethical physicians.

Corra Larson Reed, R. N., Superintendent

1690 QUINCE ST. DENVER, COLO.



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



A Corner of the Sixty-Five- Bed Heliotherapy Solarium

THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course



THE PRESBYTERIAN HOSPITAL

Modern fireproof building—Telephone, hot and cold artesian water, lavatory in every room—Light, airy rooms—Reasonable rates—Every facility for scientific diagnosis and therapy—Fully equipped pathological and x-ray laboratories and dietetic department.

East Nineteenth Avenue and Gilpin Street Denver, Colorado

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING



NATIONAL METHODIST EPISCOPAL SANATORIUM

THE NEW NATIONAL METHODIST EPISCOPAL SANATORIUM, for the exclusive treatment of Tuberculosis, has already been recognized as one of the finest Tubercular Sanatoriums in America. Colorado's invigorating air and sunshine, flooding every room through specially designed windows, diet and careful nursing, are important factors in the treatment of our patients.

For Rates and Reservations Write or Wire

GUY M. HANNER, SUPERINTENDENT COLORADO SPRINGS



WOODCROFT HOSPITAL—PUEBLO, COLORADO

Woodcroft Hospital was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent

H. A. LaMOURE, M.D., Medical Director F. M. HELLER, M.D., Neurologist and Internist

P. A. DRAPER, M.D., Resident Physician

Chicago Institute of Surgery
Inc.

J. L. Spivack, M.D., Director

2040 Lincoln Ave. Chicago, Ill.

OFFERS POST-GRADUATE WORK:

1—Surgical Technique — Two weeks' course on dogs and cadavers with a review of the necessary Surgical Anatomy. The student performs the operations himself under strict supervision of competent instructors.

2—General Surgery—A three months' course consisting of: (a) Surgical Anatomy; (b) Surgical Technique on cadavers and dogs; (c) Clinical demonstrations in different hospitals; (d) Actual assistanceship (as 1st surgical assistant) in various hospitals.

3—Special Courses—
Gynecology; Neuro-Surgery; Cystoscopy
Urology; Ear, Nose and Throat; Bronchoscopy; Regional and Local Anesthesia
Orthopedics; Thoracic Surgery; Esophagoscopy

For Descriptive Literature, terms, etc., Address the Director

Under New Management

PHYSICIANS AND SURGEONS HOSPITAL

Medical
Surgical
Obstetrical

2939 E. COLFAX YOrk 1424

Bessie A. Keener, Supt.

NOISE CONTROL OR ELIMINATION AND PREVENTION OF NOISE IN THE HOSPITAL

(Continued from Page 20)

ing rooms could be made more pleasant to patient and personnel, as well as to the patient's relatives or friends who may accompany him to the operating room floor, if attention were paid to the scientific value of acoustics. With the development of science has come the creation of many acoustical properties which are absorbers of sound. Operating rooms and corridors properly treated with this material may produce as much of a sound absorption coefficient as .45 to .74—using the basis of an open window as 100 per cent. Because of sanitation, operating suites are usually tiled, and there is no other material that produces more resonance or sound reaction than this—its coefficient being reduced to .01. This type of construction in a hospital certainly should be compensated by proper acoustical treatment of walls and ceilings. Long, low corridors with tile floors and hard plaster walls are nothing more than sound trumpets—there are no better transmitters and amplifiers of sound. This condition can be remedied by acoustical treatment of the ceilings, as wall treatment is not practical, and by the installation of double doors of sound absorption material that will act as baffles and break up sound as it accumulates in its travel from one point to another. A better arrangement for hall or corridor floors is a marble or terrazzo base with a runner strip, as wide as the hall will permit, of sound absorption material—linoleum or one of the many rubber floorings—laid over felt. This will produce an almost silent hall. This treatment can be equally as well applied to the maternity floor, delivery rooms, and wards.

Only in recent years has considerable study been made of the method of reducing noise incident to the opening and closing of doors. What is more trying than a slamming door or squeaking hinges? New construction makes possible the installation of silent fiber doors with friction hinges, locks

"TESTED FOR TOXIC REACTION"

SUCCESS DEPENDS UPON your achieving the DESIRED RESULTS. Let the LANE INTRAVENOUS and SUBCUTANEOUS PRODUCTS help you to ATTAIN THIS END.

LANE LABORATORIES, Inc.

WRITE FOR PRICE LIST COLORADO SPRINGS, COLO.

M. REDEKER
1675 S. Clarkson

J. SIKKENS
1677 S. Clarkson

The Denver Forestry and Landscape Co.

TREE AND BUSH PLANTING, TRIMMING, SPRAYING AND LAWN WORK

Phone SOuth 1929 Denver, Colorado



(a) Ordinary milks form a hard curd often regurgitated or eliminated.

(b) Soft-curd milk, being very tender, is easily digested and assimilated.

STOMACH CURDS

SOFT-CURD MILK
IS GENUINE "SPECIAL BABY MILK"

And will help solve some of the problems confronting you in establishing the diet of DELICATE INFANTS

Natural whole soft-curd (Holstein) perfectly Pasteurized milk from healthy isolated cows individually tested for their ability to give milk which forms a very soft easily digested curd produced in accordance with methods developed and instructions given by Dr. R. L. Hill, human nutritionist, U. S. Department of Agriculture. Endorsed by the Medical profession and dieticians for feeding infants, invalids, convalescents and cases of weakened digestion where milk is prescribed.

Upon request, descriptive literature and a generous sample of our soft-curd milk will promptly be sent to any member of The Colorado State Medical Society.

THE LEAGUE DAIRY

933 BANNOCK ST. KEystone 3297

Orthogon "D"

THE INVISIBLE AND COLOR FREE BIFOCAL



HAVE YOU EVER MADE THIS TEST?

Focus the light from the sun or a mill type electric light bulb through an Orthogon "D" and an ordinary fused bifocal segment — move both lenses up and down until they are out of focus. Note the color fringe with the ordinary bifocal segment and the absence of it in Orthogon "D".

It is easily proven that color aberration does impair vision. This test shows you that Orthogon "D's" are color free — they are made with a Nokrome Barium Crown segment—from Nokrome glass, manufactured by Bausch & Lomb in their own glass plant from a formula perfected after three years of experimentation. Admittedly it is the finest glass ever offered to the profession. We will be pleased to send you a booklet containing more information on this modern bifocal.

ORTHOGON "D"

Unsurpassed invisibility of segment.
Orthogon formula—Astigmatic correction.
Segment of Bausch & Lomb Nokrome (Color free) glass.
Lowest price ever offered for an invisible color free corrected bifocal.

RIGGS OPTICAL CO.

There is a branch conveniently near you to serve you with quality optical products.

for doors without the rotating knob, and the pneumatic check which is placed in the floor out of sight instead of on the door as heretofore. These items have made a practically silent opening and closing of the door.

Not all noises occur in the patient's room, but those that are there can be eliminated to a large extent. It is the practice of many hospitals to use bedside tables, dressers, and other furniture with hard tops—many times covered with glass—on which the careless placing of a drinking glass produces unpleasant noise. This can be eliminated by using sound resisting rubber bottoms for glasses, water pitchers, rubber vases, and similar equipment. Even the old type Fowler bed which, while being placed in position, resembles the action of a steam shovel so far as sound is concerned, has been improved by the friction or pneumatic appliance. The noiseless caster is an outstanding development in the elimination of noise in moving beds.

Patient's rooms can be equipped with a soft mellow tone bell or buzzer rather than with the usual toned bell, and much unpleasantness can be eliminated by the operator at the communication center avoiding unnecessary use of the call system. There has been much discussion regarding the radio or human voice call. We have this system in our hospital and believe that the human voice so far as sound is concerned is less irritating than that of any other call system.

In trend with modern times the average hospital patient, as soon as he is well enough, expects a radio in his room. All radios should be limited to low tones and their use discontinued at a reasonable hour. Better yet for many types of cases, is the pillow set. Most hospitals are now equipped with radios in their assembly rooms but proper acoustic treatment of such rooms will eliminate transmission of sound throughout the building.

The seemingly inconsiderate banging of pans, handling of trays and china ware during the serving of meals, particularly breakfast. is another patient irritant. This too

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO-ENGRAVERS AND MAP MAKERS
KEYSTONE 5634 -830- 10TH ST.
DENVER, COLO.

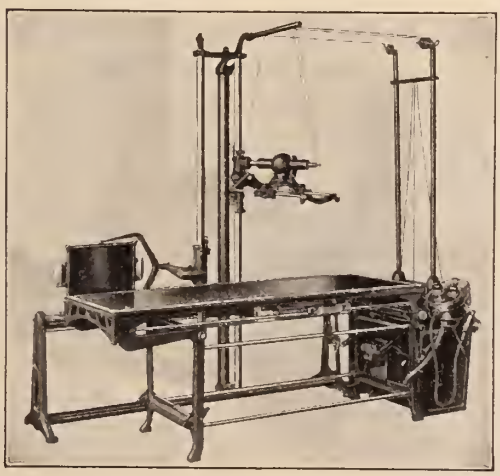
ARTHUR L. BALDWIN
Certified Public Accountant

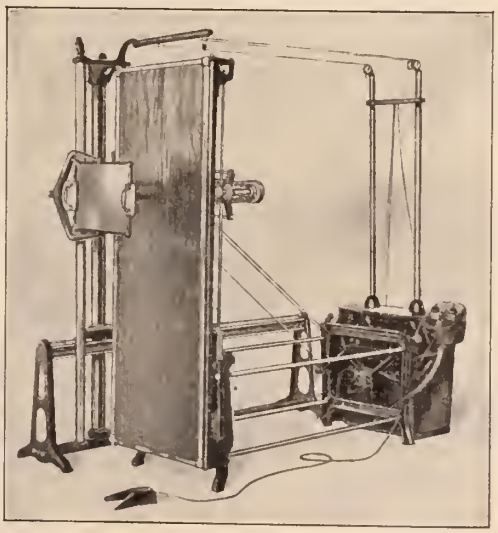
TAX COUNSELOR

Fontius Building, Denver TA. 1444

The MUCKLE X-RAY COMPANY

Has on display, a COMPLETE VERTICAL and HORIZONTAL FLUORO-SCOPIC and POTTER-BUCKY RADIOGRAPHIC X-RAY OUTFIT, 5" 60 M. A. Generator with thirty steps of voltage control over a range of 47 to 88 KV and 0 to 75 M. A.







The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

WINDSOR-MEADOW GOLD

MAin 5131

can be eliminated largely by education of personnel responsible for this service. The kitchen of the average hospital usually is located far enough away from patients that little difficulty is experienced unless it be through the elevator or dumb waiter shafts, but proper insulation of these will do much to lessen the noise from this source.

Janitors in their early morning rounds of cleaning can do much to increase the quiet and solitude of patients by careful handling of trash cans, waste baskets, sweepers and polishers. Rubber tired trucks and rubber bottoms for trash cans and waste baskets will also add to the quietness of this service.

One may expect a great deal of noise on the main or administrative floor of a hospital. Certain noise developed through typewriters can be eliminated by the use of noiseless machines and electric calculator machines and similar office equipment should be properly grounded on sound resisting material to prevent unnecessary noise.

The elimination and prevention of noise within your institution rests largely with you and your ability in observing noise and educating your personnel in its elimination.

EDITORIAL NOTES AND COMMENT

(Continued from Page 104)

Most Governments Are Inefficient or Corrupt—Some Are Both.*

One of the very first questions that naturally arises is: Have any of our governmental agencies so conducted themselves in the past as to make it reasonably safe for us to entrust so stupendous a function as universal social insurance to any branch or department? I maintain that most of our local as well as state governments are inefficient or corrupt, and some are both.

Let any one who doubts the correctness

*One of a series of articles on Social Insurance by Dr. Edward H. Ochsner of Chicago.

DIGITALIS THERAPY DEMANDS UNIFORMITY

THE Lederle Tablets of Digitalis were perfected as a result of six years' experience in the Cardiac Clinics of Greater New York with tablets of standardized digitalis leaf having a potency of 1 cat unit in 1½ grains of powdered leaf.

Only digitalis leaf which has been clinically demonstrated to possess *uniform activity*, *absorbability* and *rate of elimination* is used in the preparation of the Lederle Digitalis Tablets.

The intravenous method of Hatcher and Brody used exclusively by the Lederle Laboratories directly measures the cardiac effects of the drug. The action of digitalis on the cat heart is claimed to more nearly approach the reaction of the drug on the human heart than is possible to obtain by the Frog assay.

Digitalis Tablets Lederle are supplied in packages containing 100 tablets (5 tubes of 20), in three sizes: ½ Cat Unit (¾ grains*), 1 Cat Unit (1½ grains*), 2 Cat Units (3 grains*).

*The comparison of the cat unit of digitalis to the grain of powdered digitalis leaf refers to the leaf selected as described above for the Lederle product namely, that one and one-half grains of the powdered leaf assay one cat unit. In the above table, grains are stated only as an approximate guide to the physician who has heretofore based his dosage on weight or volume.

Literature upon request

Distributed by

HEALY & OWENS

1400 Larimer Denver, Colorado

LEDERLE LABORATORIES INC.

New York

ORTHOPEDIC SHOES



MADE TO ORDER



No work in this line is too difficult for us. Many years' experience enables us to produce quickly and economically comfortable and good looking shoes for unusual or deformed feet.

Correspondence or inquiries invited.

W. H. WEBB SHOE CO.

1410 STOUT ST. KEystone 8373

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313



Heartily agreed

. . . but what if they refuse to drink milk?

A CERTAIN State Department of Public Health is greatly exercised over the fact that malnutrition among children seems to be *on the increase.*

In the state referred to, many localities are furnishing the school children hot soup at noon. This explains the outburst of the Health Commissioner quoted above. He ends by saying: "Soup has its place . . . but let's give our growing children milk, and lots of it."

BUT . . . "you can lead a horse to water, etc." . . . and children are far more strong-minded than horses!

Here is where thousands of physicians have found Cocomalt of immense assistance. The youngsters frankly love this delicious chocolate flavor food drink, which is always added to milk. Even those who detest plain milk drink it eagerly.

Adds 70% More Nourishment to Milk

Cocomalt is a scientifically balanced combination of milk proteins, milk minerals, barley malt, converted cocoa, eggs and sugar. It adds 45% more protein, 48% more minerals to milk. Actually increases the nutritive value 70%. Cocomalt also contains Vitamin D.

Sold by grocers and drug stores in ½ lb., 1 lb. and 5 lb. cans.

Free to Physicians

We should be glad to send you a trial can of Cocomalt for testing. Simply use coupon.

Cocomalt

DELICIOUS HOT OR COLD



ADDS 70% MORE NOURISHMENT TO MILK

R. B. DAVIS CO., Dept. 43C Hoboken, N. J.
Please send me, without charge, a trial can of Cocomalt.

Name.....

Address.....

City..... *State*.....

of this statement spend a little time to look around with a critical eye and observe how most local governments, the various departments of the state in which he lives, and the departments of the federal government are conducted, and I am convinced that he will find more inefficiency than he has ever dreamed could exist. If he does not personally know of corruption and inefficiency in government, let him but scan one single daily newspaper regularly for a month in order to be convinced. And what else can one expect who is at all familiar with politics as it has been played and managed in these United States in the year 1931—the manner in which most men secure their nominations and later their elections, and to whom they are beholden when they take office.

We have all seen the statement repeatedly in the public press, but have never seen it successfully refuted, that in many of the political subdivisions of our country only sixty per cent of the taxes collected are effectively spent, the remainder being frittered away, wasted, or stolen. This inefficiency and corruption is due to many causes of which some of the more important are:

The fact that so far no formula has been discovered according to which the most efficient, honest, industrious, and worthy members of the community can be secured for public office. Nor has there been any method devised whereby spoils, politics, favoritism, pull, nepotism, waste, and graft can be eliminated with even a reasonable degree of certainty. The individual who could solve these two problems would not only be the greatest benefactor of the human race but the wisest man the world has so far produced. Plato tried to solve this problem twenty-three centuries ago when he wrote his Republic. For a time he actually thought he had found a solution. He prevailed upon the King of Syracuse to adopt his plan and put it into operation. The King tried it for a while, tired of it, and sold Plato into slavery. Some good friends ransomed him. After that, he was not so sure that his scheme would work in practice. Things are not much different today than they were in the

When impartial and dependable advice is required in connection with any insurance policy or problem,

See

Max S. Schayer
Insurance Counselor

535 EMPIRE BLDG

TAbor 5563 KEystone 6414

Nature Made It!



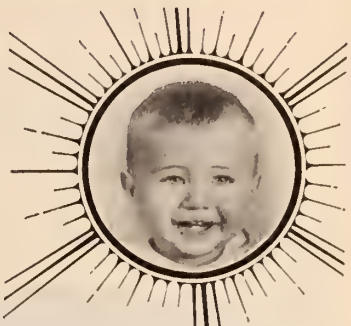
ORIGINAL MANITOU Sparkling Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

It's *Always* SUMMER *for* INFANTS *on* S.M.A.

—because S.M.A. prevents Rickets and Spasmophilia.



SUMMER sun is an effective antirachitic agent but the physician cannot always depend on it, so he usually prescribes cod liver oil.

However, it is sometimes difficult to get the infant to accept cod liver oil, whereas it is easy to give it to him in the form of S. M. A. — a dependable automatic method of preventing rickets.

For infants deprived of breast milk, S. M. A. is a close adaptation to breast milk, with the advantage that it contains enough biologically tested cod liver oil to prevent rickets and spasmophilia and the additional advantage that this cod liver oil is uniformly distributed in each feeding and is properly emulsified for easy assimilation.

S. M. A. is not only simple for the mother to prepare but also simple for you to prescribe, relieving you of exacting detail in infant feeding.

Physicians have prescribed S.M.A. for more than 250,000 infants with excellent results.

Don't you want to try S.M.A. in your own practice? A trial supply with feeding suggestions is yours for the asking.

What is S. M. A.?

S.M.A. is a food for infants—derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar, potassium chloride and salts; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

Ethical? Certainly

No directions are given to the laity and in addition from the very beginning every package of S. M. A. has borne this bold statement: "Use only on order and under supervision of a licensed physician. He will give you instructions".



S. M. A. Corporation
4614 Prospect Avenue
CLEVELAND, OHIO

San Francisco and Toronto

COPYRIGHT 1932, S.M.A. CORPORATION

(Attach to your prescription blank or letterhead.) 23-32

COLVIN BROTHERS

MEDICAL BOOKS

Ph. MA. 3866. 221 Republic Bldg., Denver

NEW BOOKS:
Marriott—Infant Feeding
Ballenger—Ear Nose and Throat
Buckstein—Peptic Ulcer X-Ray
Crossen—Diseases of Women
Sante—Chest X-Ray

The Cocks-Clark Engraving Co.
Illustrators — Designers
Photo Retouchers and Engravers
Tabor 6244
2200 Arapahoe St.
DENVER

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

time of Plato. Only worse. Worse because of the increase in population resulting in larger governmental units, the enormous increase in the number of those exercising the franchise, the increase in the percentage number of ignorant voters and the ever increasing astuteness and finesse of our practical politicians.

Inefficiency and corruption is so common that we have become callous to it. We are annoyed by it, we grumble and complain mildly about it, we pay our ever mounting taxes if we have anything with which to pay and "let it go at that." It almost seems as though we human beings had adopted David Harum's dog philosophy and were applying it to ourselves. He said, "A certain amount of fleas is good for a dog, it keeps him from brooding on being a dog."

The best illustration of governmental muddling in general is to be found in the mess most governments of the world have made of themselves during the past twenty years. As examples, we need but call attention to the virtual bankruptcy of Germany and of Austria, the maladministration in Russia, the revolutions in Spain, China, Central and South America, the dictatorships in Poland and Italy, and when we come nearer home, the general lawlessness in the United States with its murders and kidnapping for ransom; conditions in the city of New York as disclosed by the Seabury Investigation; the virtual bankruptcy of Chicago and Philadelphia, and the near bankruptcy of many other governmental units.

Let us study conditions in our own country a little more in detail in order to determine whether it would be wise or even safe to entrust the federal, state, and local government or any one of them, with supervision over the private lives of its citizens. (This phase of the problem will be taken up more in detail in the future installments).

PHYSICIANS' EXCHANGE

Salaried appointments for Class A physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoes National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member the Chicago Association of Commerce.

TELEPHONE KEYSTONE 8428

QUALITY

F. W. Berbert BERBERT *Julius Berbert*

FIRST

The latest patterns of surgical instruments always in stock.

The most modern manufacturing plant in connection, for special work and repairs of all instruments.

ORTHOPAEDIC APPLIANCES

Elastic Stockings Trusses
Abdominal Supporters

GEO. BERBERT & SONS

228 16th St., Opposite Metropolitan Bldg.

MERCUROCHROME

220 SOLUBLE

in

OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.



"Stone walls do ~~not~~ a prison make"

You may tell your patients "to get plenty of sunshine". But stone walls, glass windows, 1932 fashions in clothing, city smoke and sunless days and nights all militate against "plenty of vitamin D". You cannot control the potency or measure the dosage of the sunshine as exactly as you can Mead's Viosterol in Oil 250 D or Mead's 10 D Cod Liver Oil with Viosterol. For rickets, pregnancy, tuberculosis and other conditions accompanied by disturbances of calcium function.

FURS

REPAIRING : : REMODELING

Fur Garments Made to Order

Large Selection of Silver Fox Scarfs



Andre De Vajda

FURRIER

1451 COURT PLACE

Phone MAin 2792

Denver, Colorado

Announcing

Notice of removal from 737 E. Colfax to 44 S. Broadway, where we have purchased our own building and are now better equipped than ever before to render Corrective Foot Service. We co-operate with the medical profession through our Chiropodist and experienced shoe fitters from a practopedic standpoint. We believe we can eliminate the larger percentage of your foot troubles as we are improving our Corrective shoes all the time and are prepared to fit each and every member of your family, with normal or abnormal feet, with the kind of a shoe or slipper he should wear, at a price you can afford to pay. Our best grades run from $8.50 to $12.50 in all sizes, large or small, narrow or wide, that will fit any normal foot.

Casts made for abnormal feet and special lasts made on application. All examinations free. X-Ray service.

CORRECTIVE FOOT FITTERS

SPruce 5276 44 SO. BROADWAY

DENVER, COLORADO

"Say it with flowers"

Park Floral Co.

Phones M. 1713-1714 1643 Broadway

COLORADO COLLEGE of PODIATRY

1554 California St., Denver

Bertha DeWolfe, D.S.C., Dean

Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

The DOCTOR'S CAR

Is Given Special Attention

SHIRLEY GARAGE, Inc.

1637 Lincoln St., Denver TAbor 5111

DAY STORAGE $5 PER MONTH

Close to All Medical Buildings

Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

CUSTOM MADE

NU-BONE

SUPPORTING OR FOUNDATION GARMENTS

For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.

RUBY A. BETTS

22 Lincoln SPruce 7998

AETNA

COMPLETE MALPRACTICE PROTECTION

By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE AETNA LIFE INSURANCE CO.

Fred E. Breisch, Manager

529 Midland Savings Building
KEystone 6205

COLORADO PHOTO COMPANY

Commercial and Art Photographers



QUALITY AND SERVICE

"We Never Miss"

1822 WELTON ST. MAin 5671

DENVER, COLO.

DENSIN TOOTH POWDER

A Natural Dentrifice

Serves Three Purposes:
MOUTH WASH
GUM HARDENER
TOOTH CLEANSER

A powder that should please the most discriminating.

For sale by all druggists—thirty-five cents

SNYDER LABORATORIES
228 E. & C. Bldg. Denver, Colo.

Fine Upholstered Furniture Made to order

Furniture repairing of all Kinds

Henry Meyer
Upholsterer and Furniture Manufacturer
DENVER
538 East 17th Ave., at Pearl St.
Phone TAbor 4087

24-HOUR SERVICE
AMBULANCE *and* PULMOTOR SERVICE
DAY AND NIGHT PHONE
Main 830
John E. Wylie, Mgr.
112 Exchange Place, Colo. Springs, Colo.
Packard Invalid Sedan
Regular Equipped Ambulance

Advertising space in Colorado Medicine is worth just what you make it. When you buy from firms advertising in Colorado Medicine you protect yourself against questionable products and you increase the value of this, your own Journal, to its advertisers. If a product is not advertised in Colorado Medicine it may have been declined in order to protect you. Remember this, and use these pages as your buy-

An Open Letter to Doctors

YOUR PUBLISHER has suggested to us the mutual advantage of the cooperation of our school with the members of your fraternity; and so I am using this space to express our desire to render a service through our Position Department to doctors in the matter of recommending reliable and trained office assistants.

The average doctor is so busy that he is likely to neglect his office work, particularly collections. We frankly believe it is false economy not to employ the right office assistant; one who can meet the public in the right way, remember and record appointments, take care of correspondence, and make collections when collections should be made—promptly.

Doctors are invited to place such matters in the hands of our Employment Secretary, Mrs. Fredericke Broadhurst, KEystone 0822, Room 1, 1410 Glenarm Street. All applications will be received in confidence and recommendations made with great care.

Request. May we ask when inquiry is made about a good office training school that you remember that the Barnes School was selected, after careful investigation, as the best in its field in this territory.

BARNES COMMERCIAL SCHOOL

1410 GLENARM ST., DENVER, COLORADO

Member of National Association of Accredited Commercial Schools



Your Acceptance of *Our* Products

In every field and on every subject there is an outstanding authority. In the field of health, medicine and nutrition, you, the doctors, are the recognized authorities.

Now, through the American Medical Association, you have further safeguarded the health of the public by the establishment of the Committee on Foods. This committee passes upon each food submitted—its manufacture, its ingredients, its food value and the claims of its advertising. To the foods which pass all these tests is granted the seal of the Committee on Foods of the American Medical Association—Your Seal of Acceptance.

FOUR LOAVES OF ZIM'S BETTER BREADS have been awarded this high honor. Your seal proves that our breads have met and passed exacting tests of quality and food value—that our products are nutritious and our bakery sanitary—and that our advertising claims are based on facts.

Feel free to prescribe Zim's products. Write or call us for information, or for samples of these four loaves.

ZIM'S All-O-the-Wheat Bread
ZIM'S TWINS Double Loaf
ZIM'S Twist Loaf
ZIM'S Kew-Bee Bread



Baked by

THE ZIM BREAD COMPANY

COLORADO SPRINGS, COLO.

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources — We Insure Only Ethical Practitioners

David Jacobs, Manager — *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. — Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.

BALTIMORE, MARYLAND

THE MOUNTAIN OPTICAL COMPANY DENVER

MOUNTAIN OPTICAL COMPANY

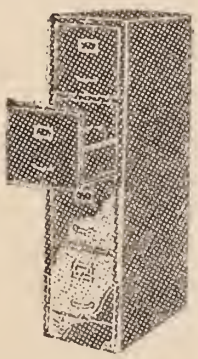
Not the Largest Manufacturers but More Careful Than Most

508 EIGHTEENTH ST. — DENVER, COLO.

QUARTERS

Are Doing Dollars' Work Down Here!

All-steel, 4 drawer roller bearing. Follow block, standard capacity. Special this week ... $18



OFFICE DESKS

$8 Up

Special This Month

Mail Orders Promptly Filled

Mutual Furniture & Fixture Co.

1920 ARAPAHOE ST. — KE. 7077

Our New Service Department

Dear Reader:

Colorado Medicine together with the Co-operative Medical Advertising Bureau (a department of the American Medical Association) of Chicago have established a Service Department to answer your inquiries about pharmaceuticals, surgical instruments and other manufactured products such as equipment, supplies, etc., which you may need for your office, home, hospital, sanitarium, or automobile.

We invite and urge you to use this service. It is absolutely free and entails no obligation.

Between the offices of Colorado Medicine and the Co-operative Bureau we are equipped with catalogs and price lists of all manufacturers, and can supply the information you desire by return mail.

Whenever possible, such products are advertised in our pages. But perhaps you want a certain instrument or other product which is not advertised, and you do not know how or where to secure it. Colorado Medicine will give you the information.

Our address is 658 Metropolitan Building, Denver. We want to serve you.

COLORADO MEDICINE.

ETHICAL ADVERTISING---

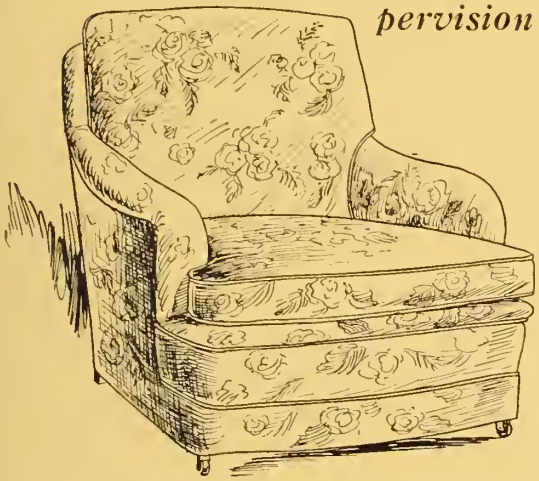
READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company ... 40
American Ambulance Company ... 11
American Medical and Dental Association ... 7
Baldwin, Arthur L. ... 31
Barnes Commercial School ... 41
Battle Creek Food Company ... 20
Berbert, George & Sons ... 37
Betts, Ruby A. ... 40
Boulder-Colorado Sanitarium ... 25
Bradley Realty Investment Company ... 3
Camp & Company ... 2
Carlson-Frink & Company ... 5
Carpenter & Hibbard Optical Company ... 6
Chicago, Burlington & Quincy R. R. ... 14
Chicago Institute of Surgery ... 28
Children's Hospital ... 24
Cocks-Clark Engraving Company ... 36
Cocomalt ... 34
Colorado Artificial Limb Company ... Cover 2
Colorado College of Podiatry ... 40
Colorado Photo Company ... 40
Colorado Springs Psychopathic Hospital ... 22
Colvin Brothers ... 36
Conway's Floral Shop ... 15
Corrective Foot Fitters ... 39
Cragmor Sanitarium ... 26
Cutter Laboratory ... Cover 4
Daniel-Smith Engraving Company ... 31
Denver Fire Clay ... 30
Denver Forestry & Landscape Company ... 29
Denver Lace Cleaning Company ... 2
Denver School of Swedish Massage ... 2
De Vajda, Andre ... 39
Durbin Surgical Supply Company ... 21
Garden Farm Dairy ... 33
Glockner Sanatorium ... 24
Golden Plunge ... 13
Gore, Chas. T. ... 17
Graduate Nurses' Club ... 17
Great Western Fuel & Hardware Co. ... 18
Griffey, E. L. ... Cover 4
Hermann, A. A. ... 12
Hynson, Westcott & Dunning ... 37
Jones, William ... 16
Lafayette-Fultz Studio ... Cover 2
Lane Laboratories ... 29
League Dairy ... 29
Lederle Laboratories ... 33
Lilly, Eli & Company ... 8
Lorton, Howard, Inc. ... Cover 3
Loxam, George ... 18
Manitou Mineral Water Company ... 35
Mead, Johnson & Company ... 38
Merck & Company ... 6
Meyer, Henry ... 41
Miles & Dryer Printing Company ... 11
Miracle Products Company ... Cover 3
Montclair Sanitarium ... 23
Montclair Training School ... 15
Mountain Optical Company ... 43
Mount Airy Sanitarium ... Cover 1
Muckle X-Ray Company ... 31
Mutual Furniture Company ... 43
National Methodist Episcopal Sanatorium ... 27
Old Homestead Bread Company ... 9
Park Floral Company ... 40
Parke, Davis & Company ... 4
Pencol Drug Store ... 16
Physicians and Surgeons' Hospital ... 28
Porter Sanitarium and Hospital ... 23
Pratt Recreation Ranch ... Cover 2
Presbyterian Hospital ... 25
Provident Mutual Life Insurance Co. ... 3
Riggs Optical Company ... 30
Robinson Clinic ... 21
Roche Ambulance Service ... 21
St. Joseph's Hospital ... 26
St. Luke's Hospital ... 22
Schayer, Max S. ... 35
Seeleman-Ehret Photo Engraving Co. ... 20
Shirley Garage ... 40
Shirley-Savoy Hotel ... 37
S. M. A. Corporation ... 35
Snyder Laboratories ... 41
Spencer Corsets ... 15
Storm, Katherine L., M.D. ... 12
Squibb & Sons ... 1
Taylor, Charles B. E. ... 13
Therapeutic Bath Institute ... 20
Trowbridge Training School ... 18
Tulane University ... 12
Twentieth Century Mfg. Company ... 5
United States Fidelity & Guaranty Co. ... 43
U. S. Multigraphers ... 18
Webb Shoe Company ... 33
Western Messenger Service ... 15
Western Newspaper Union ... 36
Windsor Farm Dairy ... 32
Winter-Weiss Company ... 11
Woodcroft Hospital ... 27
Zim Bread Company ... 42

A COMPLETE HOME FURNISHING SERVICE within one organization and under the constant supervision of the owners.



Furniture
Draperies
Floor Coverings
Upholstering
Refinishing
Cabinet Work

HOWARD LORTON INC.
724-746 SPEER BOULEVARD
DENVER, COLO.

MIRACLE

A Perfect Cleansing Compound

RECOMMENDED AS THE IDEAL CLEANSER FOR HOSPITALS, SANITARIUMS AND INSTITUTIONS. IT DISINFECTS AS IT CLEANS. POWERFUL, YET NON-INJURIOUS. FOR WALLS, FLOORS, METALS, FABRICS, DISHES, LABORATORIES AND EVERY POSSIBLE CLEANSING PURPOSE WHERE GREASE, DIRT OR GERMS ABOUND.

Liberal Trial Sample Packages Will Be Sent Gratis to Any Institution or Doctor Upon Request.

MIRACLE PRODUCTS AND MFG. CO.

1255 SOUTH PEARL ST.
PHONE SOuth 4082 DENVER, COLO.

E. L. GRIFFEY

Successor to

Robt. Gibson, Griffey and Company

Wholesale Woolen Merchants

Denver's Only Popular Priced High Class TAILOR

We Make Clothes from $30.00 to $65.00

Our $50.00 Business Suit Is a Wonder

The suits and overcoats that sell for $65.00 cannot be surpassed anywhere in Quality, Workmanship and Price.

See for yourself the excellent values we have to offer you.

We Are Conveniently Located

1509 TREMONT

ToxoK

A Specific Against POISON OAK

PREPARED under government license and supervision in dilute alcoholic solution . . . non-irritating, rapidly absorbed. The antigenic strength of each lot is constant.

The CUTTER *Laboratory*

Established 1897

BERKELEY, CALIFORNIA

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 4 APRIL, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

THE ACADEMY OF MEDICINE
MAR -5 1932
LIBRARY

TABLE OF CONTENTS

Editorials
What Is State Medicine?.....145
Build No More Veterans' Hospitals.....146
The Burden of Highway Accidents.....146
Use Your Available Credit Information.....147
Formula for Longevity.....147
Football Fatalities.....147
An Opportunity to Earn $15,000.....148
Correspondence.....148

Original Articles
Cardiac Asthma, L. E. Viko.....149
Present Trends in Tuberculosis, C. E. Harris.155
Geriatrics, C. O. Giese.....159
Head Injuries, Walter D. Abbott.....163
The Respective Indications of Cholecystostomy and Cholecystectomy, Aime Paul Heineck..166

Case Reports
A Pituitary Syndrome Apparently Related to Pregnancy, O. F. Clagett.....169
Simultaneous Perforation of Duodenum and Incarceration of Inguinal Hernia. Duodenal Tube Feeding, James Ruddy.....169

Public Health Notes.....171

Library Notes, Book Reviews.....172
Biography as Related to Medical Terminology.....175
Secretarial Notes and Comment
American Public Health Association Meeting.176
Medical Societies.....176
American College of Physicians: An Open Invitation.....178
Woman's Auxiliary.....180
Colorado News Notes.....180
Officers, Committees, Secretaries.....181

Wyoming Section
Editorials
The Rock Springs Meeting.....182
The Ticks Are Here.....182
Wyoming News Notes.....183

Hospital Section
Editorials.....Ten
The Quarterly Meeting.....Ten
Report of the Meeting of the State Hospital Association Presidents, February 15 and 16, 1932.....Fourteen

Immateria Medica.....Thirty

NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

Colorado State Medical Society Library
and
Medical Society City and County of Denver Library

COMPRISE JOINTLY

Total number of volumes.....25,763
Total number of portraits.....418
Number of periodicals received in 1931:
American, 143 Foreign, 91 Total, 234

SERVICE TO ALL MEMBERS OF THE COLORADO STATE MEDICAL SOCIETY

1. *Loans by Title:* Upon request, any book or journal will be loaned for one week.
2. *Reference Service:*
(a) Upon request, literature on any stated subject will be found and forwarded.
(b) As received, current journals will be searched for articles on a stated subject and appropriate issues forwarded to those members requesting this service.
3. *Journal Service:* Two hundred and twenty-eight medical journals are received regularly. ANY MEMBER OF THE STATE MEDICAL SOCIETY may select a journal or a number of journals which he would like to receive regularly, and these journals will be loaned for one week.

BORROWERS PAY ONLY SHIPPING CHARGES.

"WHAT CAN WE DO FOR YOU?"

TAYLOR-MADE
Kenlastic
REG U.S PAT OFF
CORSETS

ARE MADE TO SUIT EVERY NEED FROM
THE LIGHTEST WEIGHT GIRDLE TO
THE HEAVIER SURGICAL CORSET

ABDOMINAL BELTS WITH CORSET BACK

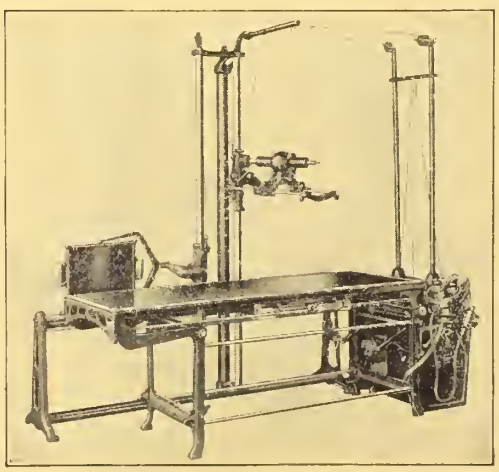
SPINAL CORSETS WITH PELVIC STEELS AND SHOULDER STRAPS

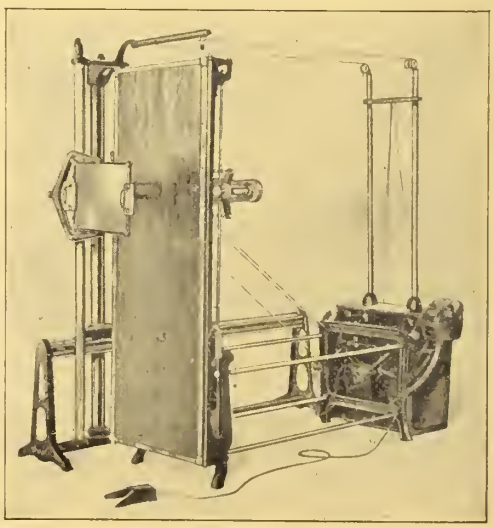
A NEW KENLASTIC SEAMLESS STOCKING IS MADE WITH
EXTENSION HEEL

CHAS. B. E. TAYLOR
ELIZABETH KENDRICK TAYLOR
204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

The MUCKLE X-RAY COMPANY

Has on display, a COMPLETE VERTICAL and HORIZONTAL FLUOROSCOPIC and POTTER-BUCKY RADIOGRAPHIC X-RAY OUTFIT, 5″ 60 M. A. Generator with thirty steps of voltage control over a range of 47 to 88 KV and 0 to 75 M. A.





Why "Sweeten" the Baby's Bottle?

DEXTRI-MALTOSE IS A CARBOHYDRATE THAT DOESN'T CLOY THE BABY'S APPETITE

When the time comes to feed soups, vegetables and cereals to the infant whose formula has been modified with Dextri-Maltose **(not a sweetener)**—both the physician and the mother are gratified to notice the baby's eager appetite for solid foods, because

Dextri-Maltose Does Not Cloy

Viosterol

USE OF VIOSTEROL DURING PREGNANCY

To the Editor:—Please advise me whether administration of irradiated ergosterol to pregnant women could cause a premature calcification of the fetal head, resulting in dystocia, with possibly damage later to the child.

M.D., Waco, Texas.

J.A.M.A., Dec. 19, 1931, p. 1914

ANSWER.—There is no danger to mother or child from therapeutic doses of viosterol (irradiated ergosterol) given during pregnancy. In fact, such medication would be of advantage, owing to the excessive drain of calcium and phosphorus that takes place during this period. This medication is especially indicated in cases in which the intake of calcium compounds has been insufficient.

Safe in Pregnancy

Extra Calcium in the Diet

In palatable, readily assimilable form, Mead's Cereal supplies added food calcium (220 mgm. Ca per oz.) which is utilized by Mead's Viosterol.

MEAD'S VIOSTEROL IN OIL 250 D, because of its well-known effect upon calcium absorption, is attracting increased interest among obstetricians for use during pregnancy. Aside from its mineral nutritional aspect, Mead's Viosterol in Oil 250 D has a marked effect in lowering blood coagulation time. Samples and literature on request. Mead Johnson & Co., Evansville, Ind., U.S.A. Pioneers in Vitamin Research.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

We Specialize in Cleaning Lace Curtains, Draperies, Bed Spreads, Window Shades

Linens and Fancy Linens Beautifully Finished by Hand
Wool Blankets Guaranteed Not to Shrink
Satisfaction Guaranteed

DENVER LACE CLEANING COMPANY

4755 WASHINGTON ST. PHONE KEystone 7528

We Call For and Deliver *15 per cent discount for cash and carry*

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically Limited Class Now Forming

Special classes for Nurses. Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R 3762 High St.

Elna Hoagland, Pres.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

Any baby taking its daily ration of DRYCO *is automatically protected against rickets!*

PRESCRIBE DRYCO

Made from superior quality milk from which part of the butterfat has been removed, irradiated by the ultraviolet ray, under license by the Wisconsin Alumni Research Foundation (U. S. Patent No. 1,680,818), and then dried by the "Just" Roller Process.

Prevent Rickets

Mothers do not forget to give babies their feedings, though they easily might neglect to give them an added antirachitic agent.

"Clinical study reveals a high antirachitic potency. DRYCO produces definite healing in cases of moderate infantile rickets." (Report of Committee on Foods of the American Medical Association, J. A. M. A., Vol. 98, No. 1, p. 49, January 2, 1932.)

Send for samples and new booklet: "Irradiated Dryco."

THE DRY MILK CO., INC.

Dept. CM, 205 East 42nd St., New York, N. Y.

_____

_____

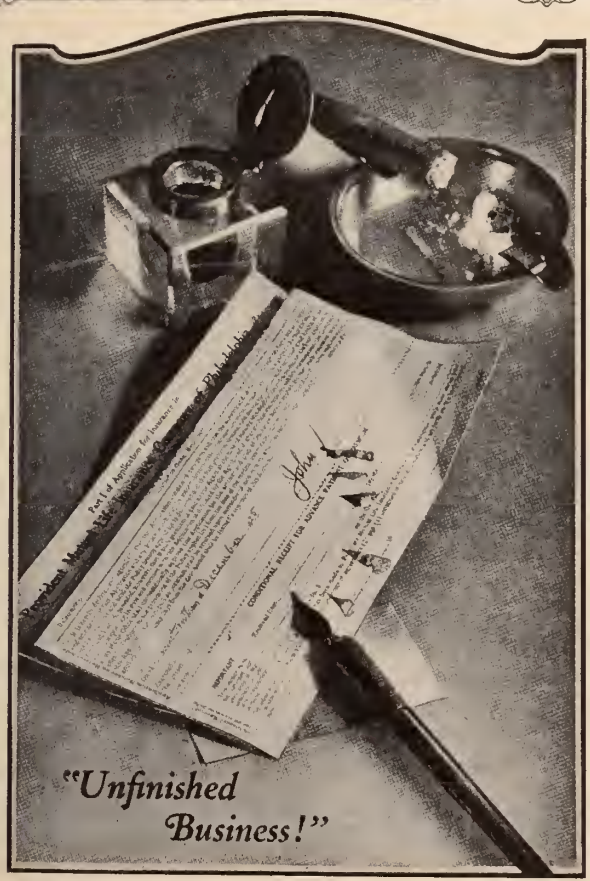
_____

ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED

The Carpenter-Hibbard Optical Co.

1628 Welton Street

Denver, Colorado



"No man can afford to put off until tomorrow the LIFE INSURANCE he should buy today!"

Provident Mutual
Life Insurance Company of Philadelphia
Founded 1865
PENNSYLVANIA

GEO. N. QUIGLEY
General Agent
1008 Patterson Bldg.
Denver, Colo.

Progress

IN THE CONTROL OF

Pernicious Anemia

VENTRICULIN, specific in pernicious anemia—each lot clinically tested by a medical research unit* of the University of Michigan —comes to you with the dose carefully worked out. For each million deficit in the red blood-cell count, give a daily dose of 10 grams. Thus a patient with a count of 2 million should get 30 grams daily. A measuring cup, holding 10 grams, caps the bottle of 100 grams—known as the "economy" package. The daily maintenance dose is only 10 grams.

*The Thomas Henry Simpson Memorial Institute for Medical Research.

VENTRICULIN
(Desiccated, Defatted, Hog Stomach)
has been accepted for N. N. R. by the Council on Pharmacy and Chemistry of the American Medical Association

PACKAGES
In tubes of 12 and 25 to the package, each tube containing 10 grams.
In 100-gram bottle, with measuring cup as a cap.

PARKE, DAVIS & COMPANY

The World's Largest Makers of Pharmaceutical and Biological Products

Detroit New York Chicago Kansas City St. Louis Baltimore New Orleans Minneapolis Seattle
In Canada: Walkerville Montreal Winnepeg

"COUNCIL ACCEPTED"

TRADE **PYRIDIUM** MARK

PHENYLAZO-ALPHA-ALPHA DIAMINO PYRIDINE MONO-HYDROCHLORIDE. (MANUFACTURED BY THE PYRIDIUM CORPORATION.)



FOR URINARY INFECTIONS

An effective germicide in a chemically stable form used extensively in the treatment of gonorrhea, urethritis, pyelitis, cystitis, prostatitis and other chronic or acute urogenital infections. In therapeutic doses Pyridium is neither toxic nor irritating. It rapidly penetrates denuded surfaces and mucous membranes and is quickly eliminated through the urinary tract . . . Pyridium is available through your pharmacist in four convenient forms: as 0.1 gm. tablets in tubes of 12 and bottles of 50 for oral administration; in solution for irrigations; as an ointment for topical application and as powder in 2, 5 and 10 gm. vials. Write for literature describing the clinical application of Pyridium.



MERCK & CO. INC.

MANUFACTURING CHEMISTS

RAHWAY, N. J.

COPYRIGHT, 1931, MERCK & CO. INC.

"COUNCIL ACCEPTED"

ACCEPTED
AMERICAN MEDICAL ASSN.
Council on Pharmacy and Chemistry

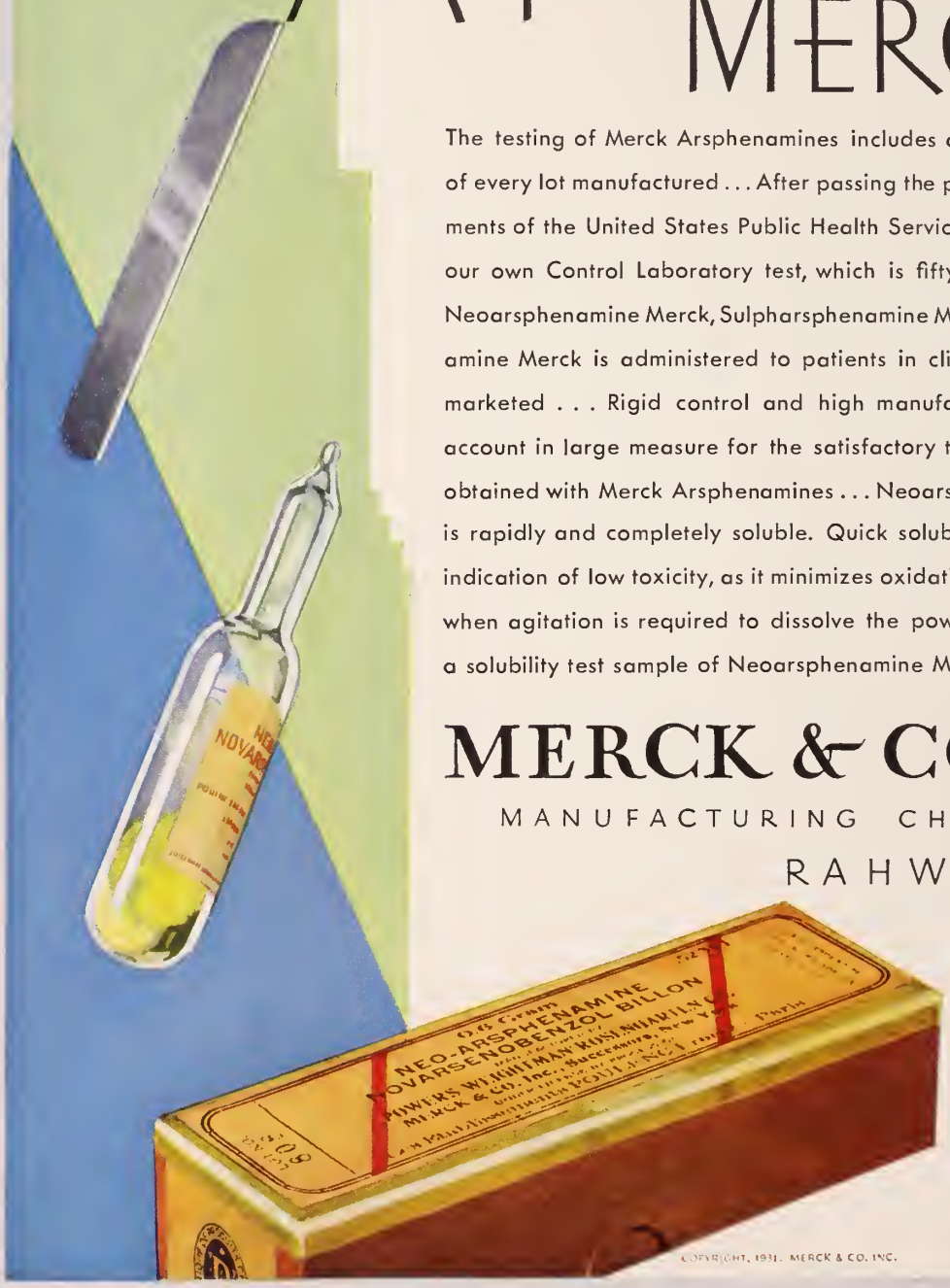
NEO-Arsphenamine MERCK

The testing of Merck Arsphenamines includes a "clinical control" of every lot manufactured . . . After passing the prescribed requirements of the United States Public Health Service for toxicity, and our own Control Laboratory test, which is fifty per cent. higher, Neoarsphenamine Merck, Sulpharsphenamine Merck and Arsphenamine Merck is administered to patients in clinics before being marketed . . . Rigid control and high manufacturing standards account in large measure for the satisfactory therapeutic results obtained with Merck Arsphenamines . . . Neoarsphenamine Merck is rapidly and completely soluble. Quick solubility is in itself an indication of low toxicity, as it minimizes oxidation that may occur when agitation is required to dissolve the powder . . . Write for a solubility test sample of Neoarsphenamine Merck.

MERCK & CO. INC.

MANUFACTURING CHEMISTS

RAHWAY, N. J.



COPYRIGHT, 1931, MERCK & CO. INC.

"KNOCKS-THEM-ALL-SPRAY"



Quick and certain death for Germs, Moths, Roaches, Bed Bugs, Lice, Ticks, Fleas, Mites and countless other pests. It does not stain and positively leaves no bad after-effects.

"Knocks - Them - All - Spray" has been manufactured in Denver and sold thruout the Rocky Mountain section for the past sixteen years. When used according to directions it is guaranteed to give complete satisfaction or purchase price will be promptly refunded.

Hospitals and medical institutions are invited to write for free samples in liberal quantity.

The price of $2.40 per gallon includes metal container.



DOCTORS, in prescribing milk for baby feeding or patients on a milk diet, can feel at ease in prescribing Frink milk, a product bottled in Denver's largest and cleanest, home-owned dairy. With modern equipment and rigid sanitary rules, we are able to deliver to the home a pure and clean bottle of very high grade milk which is Nature's greatest health food.

1230 13th St. CARLSON-FRINK CO. MAin 0111



These trucks deliver fresh Old Homestead Bread daily to quality merchants in Denver and surrounding towns.

WHY KELPIN BREAD?

We are following the advice of the scientists of the nation's highest health office by putting Kelp in bread. It's not a fad or fancy. They consider it of great importance to the public.

The business of the U. S. Department of Agriculture is to look after the farmer's interest and the food of the nation. They employ research scientists of whom Dr. J. W. Turrentine is one.

During Dr. Turrentine's research he discovered that all food grown on land is deficient in an all-important element. This lack is a causal factor in several deficiency diseases, notably goiter and certain nervous and mental diseases.

The cause of this diminishing element, he says (in the Scientific American of April, 1926), is that the rains of the succeeding ages washed this all-important element into the sea. He further says: "The sea is the world's greatest iodine reservoir"—"To illustrate: In the wheat from inland regions there is to be found one milligram of iodine per ton."

Wheat is not the only element that is lacking, but all vegetation that is grown on land is similar.

The doctor says: "The growing child, it is authoritatively estimated, should have a daily supply of one-tenth milligram of iodine. To acquire its rightful share of iodine from such a source, the child would have to eat daily 200 pounds of wheat, or 100 pounds of dried apples or 20 pounds of oats or 11 pounds of dry spinach, or 7 pounds of dry string beans."

KELP IS RICH IN IODIDES

BUTTER KRUST KELPIN SCOTCH HEALTH

How're Collections?

The
American Medical & Dental Association

Offers You

The Best Collection Service Available

Exclusively Professional

Our Adjusters and Collectors are trained in Collecting Professional Accounts, which assures you of Greater Collection Returns

List Those Slow Accounts Now

We Invite Comparison of Results Obtained

A Service That Is Not Duplicated

Credit Reports *Courtesy Notices*

Professional Collections

Ask to Have Our Representative Call and Explain

PUT US TO WORK ON THOSE SLOW PAYERS

Collection Charges as Low as 20 per Cent

No Collection—No Charge

Uncollectible Accounts Are Neglected Accounts

Est. 1912

The American Medical and Dental Association

Credit Men for the Medical and Dental Profession

700 CENTRAL SAVINGS BANK BLDG. PHONE TAbor 2331

DENVER, COLORADO

MERTHIOLATE

Distinctive for its combined germicidal value and extremely low toxicity to animal tissues



MERTHIOLATE, LILLY, IS AN ORGANIC MERCURIAL COMPOUND — SODIUM ETHYL MERCURI THIOSALICYLATE

THROUGH THE DRUG TRADE

ELI LILLY AND COMPANY

INDIANAPOLIS, U.S.A.

Research and Production in the Service of Medicine

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: W. H. Crisp, M.D., *Chairman*, C. F. Kemper, M.D., C. S. Bluemel, M.D.

VOL. 29 NUMBER 4 APRIL, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

WHAT IS STATE MEDICINE?

MANY physicians have no clear-cut idea as to just what constitutes "state medicine"; they harbor it in a far corner of their minds only as something to be shunned, and they rather hope that, whatever it is, it will not come about. The purpose of this editorial is, therefore, to clarify the definition.

The state must control medicine in part. It must set up public health regulations, sanitation control, must maintain institutions for the care of the indigent sick. It must examine and license practitioners and protect the public from the unfit healer. It must establish a number of additional regulations pertaining to medical practice without encroaching upon the right of the physician to prescribe scientifically and ethically. We must, then, differentiate between state control of medicine and state practice of medicine.

Any short definition is inadequate. One which would imply socialization of medicine might be "Medical service to the individual at the expense of the community." Such exists to some extent in federal, state, and local boards of health, county and state hospitals, free and pay clinics, health centers, convalescent and nursing homes, workmen's compensation bureaus, the Veterans' Bureau, and voluntary health organizations.

The definition contained in a resolution passed by the annual meeting of the American Medical Association in 1922 follows:

> Any form of medical treatment provided, conducted, controlled, or subsidized by the federal or any state government, or municipality; excepting such service as is provided by the Army, Navy, or Public Health Service, and that which is necessary for the control of communicable diseases, the treatment of mental diseases, the treatment of the indigent sick, and such other services as may be approved by and administered under the direction of or by a local medical society.

This places the responsibility on the local medical society of saying what is or is not state medicine. The revolutionary phase of the situation, as promulgated and spoken upon by many prominent and forceful men, is the practice of medicine by the state among those able to pay. It is this phase which the medical profession must oppose, not only for its own welfare, but alike for the welfare of the people. Some of the advocates of the system are dissatisfied physicians and surgeons who have the necessary theoretical and technical knowledge of medicine but lack the ability and personality to "put it over." Some of the propaganda has arisen from medical men airing their troubles in public rather than correcting existing evils within our own ranks.

Certain conceptions of state medicine suggest that all doctors would not have to practice it, but that it would be applicable only to the poor and middle classes, the rich still choosing their own doctors. Again, fault would often be found with the state's doctors and the state's system, and patients would seek out private physicians. While some may look upon the latter idea as a hopeful thought, tending to indicate that state medicine, once adopted, would be only temporary or would never completely drive out the private practitioner, the disorganization of the

profession which would result under any such system is obvious.

In the strictest sense, under state medicine the state would have to be the judge as to what medical treatment would be necessary, who should do it, and how it should be done, whether by bureaucracy, panel, or social insurance methods. Physicians would work definite hours, at certain places, and for stipulated remuneration. The high standards and ideals of most medical men—one of the greatest protections of the sick—would be largely lost through loss of incentive. Important productive work would be diminished. Time would prove it to have been a step backward.

BUILD NO MORE VETERANS' HOSPITALS

NUMEROUS conferences in various parts of the country have been held between representatives of the American Legion and the American Medical Association or its component divisions. The main issue has been the plan of the Veterans' Bureau for the building throughout the nation of new general hospitals to care for non-service-related disabilities of veterans. Study has demonstrated that existing veterans' hospitals contain sufficient beds to care for all war-related impairments, including tuberculous and neuropsychiatric disabilities.

Representatives of the above organizations and of the American Hospital Association and Veterans' Bureau met in Washington early in February. There resulted the formation of a permanent Conference Committee composed of four representatives from each of the organizations. The committee proposes to strive only for governmental action in providing hospitalization in existing local hospitals for non-service-related impairments.

One is impressed with the Legionnaires' sincerity toward the purpose of the conference: first, prompt and efficient hospital service to all veterans entitled to it; second, national economy through use of existing non-government hospitals; and third, avoidance of discredit to the American Legion through the development of Federal Bureaucracy in veterans' hospital erection and administration.

Absence of reference to the Shoulders Plan of disability insurance for veterans' relief is also notable. Having gained definite support for the plan of improved hospital service at less cost to the taxpayers is in itself a contribution to sound government policy. We trust the sensible attitude will continue to prevail.

THE BURDEN OF HIGHWAY ACCIDENTS

HOSPITALS and physicians of this country are giving some twenty-five millions of dollars worth of service annually in the emergency treatment of automobile accident victims. At least 40 per cent of this amount is uncollectable. Such a report might be doubled if figures were available for the amount of service given in private practice as a result of highway accidents. No hospital or physician will decline aid in the emergencies, but to collect thereafter—that is different.

Many lives are saved through such professional attendance by the doctors, and through the shelter, nursing, food, and x-ray and laboratory procedures of the hospitals. Untold numbers of such emergency patients walk out, bill unpaid—not infrequently with insurance damages pocketed. Lawyers in many instances have been paid; they are on the job when the first settlement is made. Hospital and medical fees are charged to those receiving the benefit, whereas it is right that the person who caused the injury should pay for the mending. Herein lies another complicated source of loss of funds which should go for medical care. Drastic legislation will be required to fix unquestionably the rehabilitation expense upon those who are to blame for such accidents.

The year 1932 will undoubtedly find at least two million persons requiring emergency care after motor-car accidents. Judging by statistics for 1929, 4.3 per cent of patients treated in general hospitals and 5.4 per cent

of total patient days served will result directly from highway accidents.

Here is an important problem, the solution of which will become progressively more acute. A definite plan for determining victims' ability to pay and the means of those responsible for them must be instituted. They must then be placed as soon as possible under suitable professional and institutional supervision, with the financial plan mutually agreed upon. Perhaps some 45 per cent of the total will be worthy of charity, the remainder paying according to their means. An Utopian method of meeting this situation would be a form of protective insurance.

USE YOUR AVAILABLE CREDIT INFORMATION

ONE OF THE traditional facts, among others, which brands physicians as poor business men is that they have never paid attention to credit information from business houses when extending credit. The merchants have therefore cared little whether their patrons paid doctors' bills. This in turn has been another reflection upon the profession's business attitude and ability.

By proper use of credit information and cooperation from this professional group, credit associations and collection agencies can weed out the dead-beats and facilitate our collections. Their services have been offered us repeatedly. Our patrons can not be expected to take their indebtedness to us any more seriously than we do.

FORMULA FOR LONGEVITY

AN ARTICLE in a recent Illinois Medical Journal presents a list of rules by which a physician might pattern his life and thereby attain longevity—which, statistics show, is not the rule. The list concludes an attractive reflection of an elderly doctor who feels that his "hind-sight" may be of value to the present generation of younger medical men.

One might summarize the remarks in the term "temperance"—moderation in all things. Don't consider muscular strength and enthusiasm for work as proofs of continued health and endurance. Don't permit reckless rivals to set your pace; respect your limitations. Overworking, overeating, and overworrying make up a genuine program of suicide. Eat a bit more each year until thirty, then less each year until a hundred. Slightly underweight, undersize, and "under the weather" are conducive to longevity. Fewer men die of starvation than slowly eat themselves to death. Germs of pneumonia await the busy doctor whose resistance has worn down. The quiet life is best begun before premature senility demands it.

FOOTBALL FATALITIES

AN UNPRECEDENTED number of deaths occurred as a result of football contests in the last season. The press has assaulted the powers that be in colleges, holding that the game has become murderous and that youthful lives are being sacrificed for gate receipts upon the altar of human lust for the dangerous and spectacular. The accusing hand has usually pointed toward collegiate football; however, of the forty-three fatalities, a minority were among college athletes.

The medical profession is mainly interested in the types of fatal injuries. In order of importance, they are: internal injuries, broken necks or backs, head injuries and infections. We are also interested in their prevention. Granting that the game always will be played seriously, the Intercollegiate Football Rules Committee will study the causes of the deaths and the possibility of avoiding them by alteration of rules. Rigid medical supervision of the players' physical condition and sensible coaching will perfect the preventive measures.

About twenty-five years ago a protest arose against football fatalities. The attitude of President Roosevelt at that time has gone down in history. He brought the Football Rules Committee to their senses and improved the situation, though firmly maintaining that young men must not be kept in cotton wool through overwrought sentimentality.

To curb football because of some fatalities would be none less absurd than junking auto-

mobiles on account of their death toll. The American people themselves are to blame for their lust for hard and dangerous action. Colleges will have their football and people will drive their cars. As written in the splendid tribute paid the young West Point cadet who died last fall, men have died and will die in giving their best—be it in war, sport, hobby or profession.

AN OPPORTUNITY TO EARN $15,000

MEAD JOHNSON & COMPANY announces an award to $15,000 to be given to the investigator or group of investigators producing the most conclusive research on the vitamin A requirements of human beings.

Candidates for the award must be physicians or biochemists, residents of the United States or Canada who are not in the employ of any commercial house. Manuscripts must be accepted for publication before December 31, 1934, by a recognized scientific journal. Investigations shall be essentially clinical in nature, although animal experimentation may be employed secondarily.

The Committee on Award will consist of eminent authorities who are not connected with Mead Johnson & Company, the names of whom will be announced later.

There are no restrictions regarding the source of Vitamin A employed in these investigations.

For other details of the Mead Johnson Vitamin A Clinical Research Award, see special announcement, pages 14 and 15, in Journal of the A. M. A., January 30, 1932.

CORRESPONDENCE

The Editor, Colorado Medicine,
658 Metropolitan Building,
Denver, Colorado.
Dear Sir:

The comments of Dr. Edward H. Ochsner of Chicago, which you print editorially in your February issue, on the subject of Social Insurance will not, I hope, pass the critical gullets of western readers without a good deal of gavage. "All forms of social insurance are contrary to the spirit of democratic government," writes Doctor Ochsner, thereby excluding from the spirit of democracy the governments of France and of Great Britain. And on what ground? "They destroy individual incentive, initiative and self-reliance." If Doctor Ochsner will visit either France or Great Britain I venture to predict he will still find traces of initiative and self-reliance in these countries. I wonder if Doctor Ochsner would care to compare the percentage of voters who recorded their votes in the last general election in Great Britain with the percentage who used their right to vote in the last presidential election in the U. S. A.

And are we to understand that paying out unemployment or medical benefit on account of paid up insurance is more fraternalistic than giving unemployment relief from the Community Chest and medical relief out of the doctors' pockets as we do at present in this country? Perhaps, after all, it is not such a bad thing to have a father. But I would rather be brought up by the first father than by the second. I think that the father who made me save in good times so that I should have some reserve against bad times would be the more likely to inculcate "self-reliance."

I could write a lot more on this subject than you, dear sir, would wish to print. Instead may I urge your readers to study the report on Sickness Insurance made by Dr. W. C. Rappleye to the secretaries of state medical associations eighteen months ago[1] and the unusually well informed article of Dr. Renè Sand[2] published in a former number of your important journal.

I am, dear sir,

Yours very truly,
J. ROSSLYN EARP, Dr. P.H.

Santa Fe, N. M.

[1] A. M. A. Bulletin 26:35 (Feb.) 1931.
[2] Colorado Medicine 27:120 (April) 1930.

CARDIAC ASTHMA*

L. E. VIKO, M.D.
SALT LAKE CITY, UTAH

Cardiac asthma, better termed paroxysmal cardiac dyspnea, is not a disease but a symptom-complex seen in certain forms of heart disease. It is of particular interest because of its serious prognostic significance, our scanty knowledge of its pathogenesis and because the paroxysm of cardiac asthma occurs most commonly not as a response to exertion but during sleep. Like angina pectoris it presents the striking contrast between the anguish and danger of the patient during the attack and his relative lack of symptoms between such attacks.

The mechanism of the production of this symptom-complex has not yet been determined; many theories have been proposed. Except for the use of morphine for the acute attacks, treatment is empiric and unsatisfactory. Rational and specific treatment must await a better knowledge of pathogenesis. The present paper presents some scattered and incomplete clinical observations of the phenomena seen on patients showing this syndrome and attempts to correlate these with its treatment and current theories of its pathogenesis.

First let us review briefly the description of such paroxysms of dyspnea. No more vivid picture can be given than that of Albutt[1] in 1925. He says, "I see again, with the vividness of life, the desperate conflict of a strong man with a paroxysm of suffocation. . . . The patient, seized and throttled before he could cry out, sprang uplivid to wrestle with death. The desperate conflict made the enemy almost visible to us. Now this way, now that, springing up in bed to fight from the edge of it, to sink back again in utter exhaustion, but only to rise again panting with the sweat streaming from him. . . . Someone exclaimed, 'Angina pectoris.' Thoracic agony it was indeed, but dyspnea is not a character of agina pectoris. . . . His heart was laboring and hypertrophic, the arteries thick and the arterial pressure very high." To complete this description we may add phrases from Loncope's[2] narration of an attack he watched. "He implored us to relieve him of his distress, but talked quite intelligently throughout the attack, and said there was no actual pain, but terrific difficulty in getting his breath. . . . He began to cough and expectorate a small quantity of thick blood-stained mucus."

The attacks I have seen usually woke the patient from an apparently restful sleep. Cyanosis was uncommon. (Lewis[3] states that it occurs only if there are complicating lesions.) Rather a pronounced pallor and appearance of bitter anxiety characterize the facies. Frothy blood tinged sputum is not uncommon. On examination of the chest, one may find nothing different than before the attack except deep, rapid, and labored respiration. There may be few or numerous moist rales at the bases or scattered over both lungs and may be coarse, sibilant bronchial or tracheal rales. Both inspiration and expiration may be equally affected (Vaquez and Laidlaw)[4] or there may be the expiratory wheeze suggestive of bronchial asthma. The heart is usually increased in rate and the pulse weak. Occasionally one can demonstrate an increase in the cardiac diameter to the left and a new or louder mitral systolic murmur. The blood pressure may be unchanged or increased. The attacks occur frequently in patients with late or little or no edema, patients who are otherwise well enough to be out of bed. Lewis has noted they frequently have subnormal temperatures. The mild attacks may subside gradually after the patient has assumed the upright posture; with appropriate treatment the severe attacks may likewise pass off with surprising rapidity. Or despite treatment, acute pulmonary edema, respiratory failure, or dropping blood pressure from myocardial failure may lead to death in the attack.

Many features of these attacks differ strikingly from the more usual symptoms of heart disease. While in most other patients dyspnea, palpitation, and precordial pain occur during waking hours as the immedi-

*Read before the sixty-first annual meeting of the Colorado State Medical Society at Colorado Springs, Sept. 15, 1931.

ate result of exertion, the paroxysms of cardiac asthma occur most often during sleep without preceding exertion. They are sudden in onset and often of short duration. The imminent danger of death during the attack seems incompatible with the relative health between attacks. Even during the attack the usual absence of cyanosis, disturbance of rhythm, peripheral edema, and cardiac pain contrast with the intense dyspnea. Recumbent posture seems to predispose to the attack while erect posture may relieve it.

Faced with such a curious picture, we naturally turn to pathology in search of a clew. We find that the symptom-complex is not confined to any etiologic or anatomic type of heart disease, but we do find that it usually occurs in those types which produce the greatest strain on the left ventricle—the heart of hypertension or that of aortic regurgitation from syphilis or rheumatic infection. Vaquez and Laidlaw[4] say that "it is rare in mitral disease and more frequent in aortic patients, especially when at the same time they are affected by hypertension and renal sclerosis." Pratt[5] reported thirty-nine cases; of these, thirty-six were senile hearts, one was of syphilitic aortitis and two of rheumatic aortic regurgitation. Of thirty of these on whom blood pressure readings were taken, eighteen showed hypertension, and Pratt stated that others might have had previous hypertension; none showed evidence of renal insufficiency. Palmer and White[6] found the cardiac asthma syndrome in eight per cent of 3,100 heart cases; they found it in twenty-one per cent of the syphilitic hearts, nineteen per cent of those with chronic nephritis, ten per cent of the arteriosclerotic-hypertensive group and less frequent in "pure hypertensives" than in "pure arteriosclerotics." They report it in only two per cent of rheumatic heart disease cases. Aortic regurgitation, usually of luetic origin was the only common valve defect. From the study of these 250 cases of cardiac asthma they concluded that "left ventricular failure due to any one or a combination to several factors appears responsible for cardiac asthma, but the exact mechanism is not clear." The present writer's series is too small to justify statistical consideration, but I expect to find syphilitic or rheumatic aortic regurgitation, or past or present hypertension or the arteriosclerotic heart with a possible history of coronary occlusion. It is about two and a half times more frequent in males than in females. In these patients, auricular fibrillation is infrequent. Congestive failure is uncommon or late. Hypertension is common but not invariable. Lewis has pointed out the frequency or subnormal temperature. Cheyne-Stokes respiration frequently occurs and not infrequently also the attacks of paroxymal nocturnal anxiety or cough that Pratt considers equivalents of cardiac asthma. Acute pulmonary edema not infrequently follows or replaces an attack of cardiac asthma. Such a combination of pathology and symptoms constitutes a clinical picture unique in cardiac disease.

Many theories have been proposed to explain the pathogenesis of the attacks. Vaquez and Laidlaw consider them attenuated forms of angina decubitus or of acute pulmonary edema. On this basis they consider the mechanism of cardiac asthma and acute pulmonary edema to be the same. They divide the many theories into four groups: the toxic, the angioneurotic, the mechanical, and the mixed. According to the toxic hypothesis, the pulmonary edema (and hence the cardiac asthma) is due to the retention by sclerosed kidneys of noxious products. But Vaquez finds that renal lesions are not invariable. In my own series—while some patients have had definite nephritis and several died in uremia, others had entirely normal urinary, blood chemical, and renal function tests. Lewis formerly ascribed the paroxyms to blood acidosis, but now apparently considers this a result of nephritis rather than of the cardiac condition.

The angioneurotic hypothesis considers the attacks as the result of an aortic-pulmonary reflex leading to pulmonary vasodilatation and serous transudation. Such a thesis is difficult to prove or disprove. But so far as it might be applied to cardiac asthma, if a sufficient degree of pulmonary congestion is present to lower the blood carbon dioxide enough to induce such extreme dyspnea, it

is hard to understand why the oxygen-saturation of the arterial blood is not reduced enough to result in cyanosis. Cyanosis is rarely present in the attack. Also in my experience while pulmonary edema in slight degree often occurs with the attack, it is not usually in a degree comparable to the dyspnea.

The mechanical hypothesis as usually stated assumes that as the result of increased arterial pressure, the left ventricle dilates; this, with the unaffected right heart circulation, results in increased pressure in the pulmonary circulation, dyspnea, and edematous transudation into the lungs. This theory is the one most commonly stated as the pathogenesis of cardiac asthma. So far as this theory ascribes the dyspnea to pulmonary congestion, it seems open to the same objections as the previous one. However, sudden left ventricular failure may possibly induce dyspnea, not by pulmonary congestion, but by a deficient arterial circulation to the respiratory center, so permitting accumulation of carbon dioxide there, with or without reduced oxygen supply. Wassermann[7] sponsored this theory and attempted to explain the nocturnal character of the attacks by assuming that sleep reduces the irritability of the respiratory center and permits accumulation of carbon dioxide and an oxygen debt there until an explosion takes place. One might add to this an additional factor in the usual blood pressure drop during sleep. This theory receives support from the frequent association of Cheyne-Stokes respiration and asthma. The former is supposed to have a mechanism similar to that just subscribed. Mackenzie[8] observed that in attacks of cardiac asthma, the patient woke in apnea and then went on into the dyspneic paroxysm. He considered that Cheyne-Stokes respiration is the origin of cardiac asthma in all cases. Peabody[9] stated that association is demonstrated by pneumographic tracings taken during sleep. Cushing[10] and Eyster[11] associated the changes in respiratory rhythm in Cheyne-Stokes respiration with corresponding changes in systemic blood pressure, the periods of increased blood pressure being associated with increased respiration, the anemic period depressing the respiratory center but stimulating the vasomotor center and raising the blood pressure. Because of this association of blood pressure changes with the respiratory phases of Cheyne-Stokes respiration and because of the relation of blood pressure to left ventricular load and output, the writer has attempted to correlate the attacks of cardiac asthma with blood pressure changes.

It would be of great interest to determine blood pressures just preceding, during, and following an attack of cardiac asthma. A rise in blood pressure preceding the attack would suggest a primary peripheral vasoconstriction that led to left ventricular strain and would favor the theory of a mechanical pulmonary congestion as the bases of the dyspnea. A fall in blood pressure preceding the attack would favor the theory of the respiratory center being the seat of the dyspnea. Unfortunately the irregular occurrence of the attacks and their usual occurrence during sleep makes it almost impossible to secure a blood pressure determination during the minute preceding the paroxysm without some device for automatic and continuous blood pressure recording. I have secured some readings ten minutes before an attack without finding any significant facts, and of course the pressure so long before an attack is no indication of the level just preceding it. As others have noted, in several instances the pressure during the attack was considerably higher than its usual interval level, but whether this rise was a primary or compensatory factor could not be determined. In other cases the pressure during the paroxysm was not significantly changed.

In view of the fact that many patients with the identical pathologic background including hypertension never develop cardiac asthma, it was thought of interest to note whether any correlation could be found over a long period between the usual blood pressure and the development of attacks of asthma. In a patient with arteriosclerotic-hypertensive heart disease observed for several years before and between periods of cardiac asthma, no significant variations in blood pressure were found. This patient

also demonstrated the usual absence of congestive failure; he died after a prolonged attack of cardiac asthma and even at death presented no edema and little or no liver enlargement or increased venous pressure.

There was no evidence that periods of cardiac asthma resulted from increased peripheral arterial tension nor from lowered blood pressure such as might follow left ventricular weakness. Similarily, in a case of rheumatic aortic regurgitation not associated with hypertension, records of blood pressure over long periods before and between attacks of cardiac asthma showed no important alterations of blood pressure. It is not necessary to present the figures of this case.

Another case, a man of forty-nine years, with rheumatic aortic regurgitation and a history of previous hypertension, was first seen in a severe attack of cardiac asthma. In the hospital these recurred many times in each twenty-four hours for about twenty days and required the frequent use of morphine, each time with relief of that attack. Numerous blood pressure readings were taken during attacks, after attacks, and in several instances ten minutes before attacks. No significant elevation or depression of pressure was found. There was no evidence of renal insufficiency in any of the blood or urinary findings. The blood chlorides were normal, contrary to the belief of Merklen that chloride retention plays a significant role in cardiac asthma. Ordinary congestion failure was absent. For relief of the individual attacks, nitroglycerin, caffeine hypodermically, alcohol, and oxygen inhalations were of no value. Only morphine gave relief. In trying to prevent the attacks, many drugs were tried. At the end of the eighth day digitalis had been given to the point of toxic symptoms, yet the attacks continued. Salt restriction seemed valueless. Sodium amytal seemed of temporary value; luminal was ineffective. Theominal may have been of value, but more probably prolonged bed rest was the measure that resulted in the final cessation of attacks. With the gradual disappearance of the attacks, the heart became much smaller as shown by the position of the apex impulse, percussion, and x-ray examination. The patient was free from attacks for fifteen days, and then despite the continuance of digitalis and theominal, they suddenly recurred with even greater frequency and severity; the heart enlarged to its former size, the blood pressure became unreadable, even morphine gave little relief; the patient died in about forty-eight hours. This case is an example of several cases where one could find no important blood pressure changes. It also illustrates several cases in which distinct left ventricular enlargement was shown to coincide with periods of frequent attacks. In other cases, especially those with thick chest walls, heart size was difficult to determine accurately. Even in these cases however, a new or louder mitral systolic murmur appearing during attacks and disappearing with their cessation often suggested left ventricular dilatation. Nevertheless such a murmur did not appear in all cases.

Another case, a woman of fifty-seven years with hypertensive heart disease afforded an opportunity for some interesting observations. At the time she was first seen she was having two or three attacks of moderate severity in each twenty-four hours. Her blood pressure was 250/124; the heart was markedly enlarged to the left; there was a loud apical systolic murmur heard all over the left chest front and back. There was no evidence of renal insufficiency. The patient was given a bromide-luminal mixture; absolute bed rest and hospitalization was advised, but only partially complete bed rest at home was attained. Under this regime, the blood pressure showed at first a moderate drop and then became relatively stationary, and the frequency and severity of attacks was somewhat reduced. About the twelfth day of treatment the sedative mixture was discontinued and digitalis and elixir potassium thiocyanate started. The blood pressure showed a progressive drop until on the twelfth day it reached 120/60. The attacks during this period had at first diminished and then increased again. The thiocyanate administration was stopped. Two days later in the middle of the night the patient was waked with the most severe attack of dyspnea to date—one relieved only by mor-

phine. During the attack the blood pressure was 150/100. During the next two weeks under sedatives again, the attacks continued at about their original frequency and severity, the blood pressure averaging about 150/80. Meanwhile digitalization had reached the point of nausea and was temporarily discontinued. During the latter few days of these two weeks, the patient had frequent periods of paroxysmal anxiety or cough like those described by Pratt. It was difficult to decide how much the condition was psychic and how much based upon an actual physical basis—this is often true of such cases. I was inclined to favor the neurotic origin of the symptoms until the night of January sixth when she was waked by an attack of acute pulmonary edema. Both lungs were filled with moist rales, and the patient coughed frothy blood-tinged sputum. The blood pressure had risen to 220/130. Nitroglycerine, brandy, and caffein gave no relief. Morphine gave relief in about ten minutes. This attack had occurred when the patient was not far short of digitalization, and without obvious cause. The blood pressure the preceding day was 140/82. For the next month the patient was kept at absolute bed rest with day and night trained nurses; digitalis and sedatives were given. The blood pressure showed a gradual rise and the attacks decreased. There seemed to be a correlation between fluctuations in blood pressure and the attacks: lowered pressure was often followed by increase in attacks and higher pressure by decrease of the attacks. A more definite association could probably have been obtained if the pressure had been determined very frequently throughout the twenty-four hours. By February 1, the patient had improved enough to be out of bed. From February to the middle of August, she steadily improved, had only occasional attacks, and was seen at infrequent intervals. The apical murmur had become soft and radiated over a much smaller area. The blood pressure averaged 200/100. In August, she was well enough to take an auto trip to the Pacific Coast and suffered only two attacks while on this trip.

On August 21, she had an acute attack of appendicitis. At operation that afternoon the appendix had already perforated. During the operation the blood pressure, taken every two minutes under gas-oxygen-ether anesthesia, showed enormous fluctuations, yet there were no phenomena suggesting cardiac asthma. At the end of the operation inhalations of carbon-dioxide-oxygen were given with the usual resulting hyperpnea but no other effects. In the first four days after operation no suggestion of cardiac asthma occurred except a short period of dyspnea following an infusion of normal saline. Beginning the fourth day after operation and coinciding with a low fever from the area of purulent drainage in the abdomen, the blood pressure began dropping. With this drop appeared an increase in the apical murmur and the appearance of mild attacks of dyspnea or of cough or anxiety usually worse at night. These symptoms were at their worst when the blood pressure reached 90/66. Following this, the symptoms gradually subsided, and the blood pressure slowly rose to 130/80.

It is difficult and unsafe to draw conclusions from these observations. In no instance was a rise in blood pressure seen just prior to an attack of cardiac asthma. When the blood pressure was artificially reduced by thiocyanate, there followed a marked increase in the attacks. Improvement in the patient's condition was associated with a rise in blood pressure. After operation, a falling blood pressure was associated with the appearance of attacks and a rise with their disappearance. In the case of the thiocyanate, the blood pressure change may be assumed to be the result of the action of the drug on the peripheral vessels; other changes in pressure probably were the result of changes in myocardial function. It would seem that reduction of blood pressure from either cause is followed by attacks. If this be true, reduction of blood pressure in such cases by any measure other than by rest would appear illogical. The various cases seen gave some definite evidence of the association of dilatation of the left ventricle and the appearance of paroxysmal dyspnea.

Reference has been made to the subnormal temperature common in these patients. No difference in the temperature was found

in periods of attacks and period free from attacks. In describing a few of these cases, reference has been made to treatment. There remains only to summarize the opinion of the writer and others regarding the value of drugs and other measures.

For relief of the attacks, I have found morphine a failure only in the terminal stages. This seems generally agreed upon by all writers. White[12] finds that venesection is of great value. I have not tried this; in few cases was there an apparent increase of venous pressure great enough to make this appear logical. White quotes Marvin as stating that intravenous hypertonic glucose solution gives great relief. I have not had an opportunity to try this. Adrenalin, in my small experience, has never given relief and has twice increased the severity of the attack. Pratt reports two deaths from its use, although he has noticed occasional benefit. White[6] tried it three times without relief. I have seen no benefit from nitrites, but Kahn[13], White[6] and Pratt[5] found them occasionally of value. Brandy and aromatic spirits of ammonia prove helpful in mild attacks. I am unable to evaluate the use of caffein. Brunn[14] advises pituitary extract. In the one case in which I tried its use, it both augmented and induced attacks. Oxygen inhalations did not prove useful; this might be expected from the lack of cyanosis. Kahn found carbon dioxide inhalations of value. It is difficult to see the logic of such a measure. Dressler in Vienna believes intravenous salyrgan to be almost specific for acute pulmonary edema; in two of my cases it failed to relieve cardiac asthma.

Only one measure for prevention of attacks has seemed to me of definite value—prolonged bed rest. Under this heading, I include the use of such sedatives as necessary to relieve nervousness and apprehension. Sodium amytal has seemed the most effective, luminal and bromides less so. I use digitalis routinely but have been disappointed to see attacks occur when the patient was digitalized to the point of tolerance. Theominal seemed to produce effects in two cases not obtained with larger doses of luminal. Unfortunately any treatment is still empiric until we reach a better understanding of the pathogenesis of this interesting symptom complex. There is here a wide field for useful clinical and physiologic research.

REFERENCES

[1]Albutt, C.: Diseases of the Arteries Including Angina Pectoris. London: 1915.
[2]Loncope, W. T.: Arch. Int. Med., 1915, XI, 26.
[3]Lewis, T.: Lectures on the Heart, New York: Hoeber, 1915. P. 86.
[4]Vaquez and Laidlaw: Diseases of the Heart. 1925: W. B. Saunders Co.
[5]Pratt, J. H.: J. A. M. A., 1926: LXXXVII, 809.
[6]Palmer, R. S. and White, P. D.: J. A. M. A., 1929: XCIII, 431.
[7]Wassermann, S.: 1926: Neue Klinishe Gesicht Spunke zur Lehre vom Asthma.
[8]Mackenzie, J.: Oxford Medicine, vol. II, 420.
[9]Peabody, F. J.: Oxford Medicine, vol. I, 429.
[10]Cushing, H.: Johns Hopkins Hosp. Bull., 1901: XII, 290.
[11]Eyster, J. A. E.: Johns Hopkins Hosp. Bull., 1906: XVII, 296.
[12]White, P. D.: Heart Disease. 1931: The MacMillen Co.
[13]Kahn, M. H.: Amer. Heart Jour., 1927: II, 424.

Number of Nurses Increasing

The committee on the grading of nursing schools has compared the census of the nursing profession in 1920 with that in 1930. Figures covering eighteen states and the District of Columbia show that the total population has increased 7 per cent, while the total number of trained nurses has increased 78 per cent. The average nurse has no more than 149 days of employment in any given year, the figures in different cities ranging between 77 and 201.

Untrained nurses are not on the increase, census figures show, but trained nurses are being turned out to terrific competition by the thousands each year. In Maine, for example, there was in 1900 one trained nurse for every 5,068 persons; in 1910, there was one for every 910; in 1920, one for every 579, and in 1930 one for every 349.

"If nursing is to avoid disaster," says Dr. May Ayres Burgess in presenting these figures in the March number of the American Journal of Nursing, "the steady production of more students, who become graduates, must cease. It must cease not only in the small schools, but in most of the large schools as well. Graduate nurses must be employed. If they are unemployable, they must be re-educated.

PRESENT TRENDS IN TUBERCULOSIS*

C. E. HARRIS, M.D.
WOODMEN

Great changes have taken place respecting tuberculosis since the beginning of the century. Those whose interest lies largely in statistics are apt to be unduly optimistic. Did we rely on mere mathematical calculations, there would be grave danger that a false sense of security would befog the issue. So broad is the problem of tuberculosis that a good case could be made either by the optimist or the pessimist. It seems appropriate at this time to review present trends in contrast to events of the past in order that better orientation may be possible.

So far as our own country is concerned, no disease in human history has been the object of such organized and sustained attack. The year 1900 disclosed a mortality rate of 202 in the registration area. The present rate is well under eighty. Even allowing for increase in population, this shows a tremendous saving in human lives. The inevitable trend of mortality figures is downward in all civilized nations, but even our most cold blooded statisticians concede that more than natural forces have been responsible for the change. The development of racial immunity and betterment of living conditions must be given their due, but we cannot ignore the influence of our sanatoriums and the wide sweep of the general health movement. It has thus come about that tuberculosis has fallen from first to sixth place in our mortality tables. It has been superseded by diseases which take their greatest toll after middle life. We are all too ignorant of the fact that tuberculosis still maintains its sinister leadership up to approximately age thirty-eight, when it gives place to heart disease. Cast down from its one-time evil eminence, it still remains a terrible scourge during the most useful and productive years of life.

Another startling fact is the failure of women between the ages of fifteen and twenty-four to profit by the general betterment in mortality. The figures show that between 1900 and 1924 the mortality rate for males declined 50 per cent and for females only 42 per cent. While such figures cannot be explained with scientific satisfaction, it seems that the encroachment of women on economic fields and silly dieting fads have both had an unfavorable influence. The mass rate for women, however, still remains slightly lower than that for men.

Another disquieting factor is found in the classification data supplied by sanatoriums. Detailed figures are not available. It is, however, permissible to state that many institutions are admitting 50 per cent or greater of advanced disease. Considering the vast amount of propaganda and the great sums spent on county, district, and state sanatoriums, this is a truly shocking revelation. On the brighter side is the fact that many sanatoriums are reporting increased numbers in the "no clinical tuberculosis" and non-tuberculous groups. These groups include a goodly number who have been referred largely on suspicion and reveal a wholesome policy of safety first. Our figures for these groups at the Modern Woodmen Sanatorium run from 20 to 25 per cent. A considerable number of these cases are found free from physical signs or showing only slight basal moisture. They furnish fairly conclusive evidence that neither the general public nor the medical profession appreciates the vital need of rest in the treatment of acute respiratory infections. Tuberculosis, after all, is an infectious process and is often imitated by less formidable infections.

Another encouraging trend is evident in the closer attention which our medical schools of today give to tuberculosis. One who reviews a large number of application blanks yearly cannot fail to note that better diagnosis of lung disease is being made by the younger generation of medical graduates. This is indeed a beneficent omen.

Beyond question x-ray methods represent the greatest advancement made in the diagnosis of tuberculosis during the past thirty years. In fact it may well be questioned whether any other diagnostic fundamental has been revealed in that time. Like all

*Read before the Sixty-first Annual Session of the Colorado State Medical Society at Colorado Springs. Sept. 17, 1931.

great innovations, it has taken many years and much research to bring x-ray technic and interpretation to a satisfactory level. As with other methods we have had extremists on both sides. We meet enthusiasts who believe they can diagnose practically any abnormality in the chest by the radiograph alone. At the other extreme are found the complacent individuals who fancy they can do high class chest work without films. Both are wrong. The successful diagnosis and prognosis of pulmonary tuberculosis today demands that we employ every resource in our armamentarium. Any other course invites disaster. It has been said that the x-ray reveals past history, while a physical examination discloses current events. We must go farther and state that radiographs commonly have a very chastening influence on the man who thinks he can rely wholly upon his five senses for diagnosis. In brief the x-ray reveals, in a very large percentage of lung cases, conditions which otherwise cannot be demonstrated by the most rigorous diagnostic routine. As matters stand today, there is no possible chance that the early diagnosis of tubercle will reach its ideal until the use of chest films becomes more general. It should be remembered, however, that while the x-ray has extended the doctor's field of vision, it has not given him automatic diagnosis. Interpretation must come from the man, not the machine.

Outstanding in the fight against tuberculosis have been the increase in available beds and the development of case finding machinery. There are today more than 70,000 beds for tuberculous patients in the United States, and the building of sanatoriums continues. In addition, a tremendous increase in the number of nurses doing public health and school work has made it easier to locate tuberculous patients and tuberculosis contacts. Dr. James Waring of Denver has well said that what the tubercle bacillus most desires is more and better contacts. Common sense demands that those who have been exposed to known cases of tuberculosis be speedily examined. The campaign of search for childhood tuberculosis has unquestionably produced good results and will become an absolutely outstanding feature of the battle for the ultimate eradication of tuberculosis as a public menace. Our own Colorado Tuberculosis Association is rendering no small service along this line. I can only pause to state the use of tuberculin skin tests and the x-ray are well nigh indispensable in the diagnosis of tuberculosis as typically encountered in childhood. Coincident with this work has been the slow but encouraging growth of open air schools with their specialized programs of rest and nutrition for under-par children. The results of such objective health teaching in early life can hardly be productive of anything but good. The studies made thus far in widely scattered states show that the incidence of infection with tubercle is steadily declining.

In considering treatment I can but briefly mention certain changes which have come about since 1900 and offer a few critical comments on unwholesome tendencies. Recently Dr. C. O. Giese of Colorado Springs stated that the advanced, bilateral case of pulmonary tuberculosis had no better chance of cure today than similar cases which developed twenty years ago.

Most authorities will agree with this view. We are as far removed from a specific cure as when Koch first discovered the tubercle bacillus. Probably the most notable advance in recent years has been the development of compression therapy for cases which are predominantly unilateral. The technic for pneumothorax has become fairly well standardized. Its weak points are greatly outweighed by the benefits it confers. When it is found impractical because of adhesions, there still remains a sizable group of patients who have a good fighting chance for arrest through the more formidable surgical collapse. Results obtained by better technic and judicious selection of cases justify the belief that these two methods are thoroughly established. We can speak with less assurance of exeresis or resection of the phrenic nerve, as this method has not been subjected to the test of time. It seems apparent that it is a helpful procedure in properly selected cases, while its failure does not preclude the use of more radical measures. It has the added advantage of slight

surgical risk. The operation is performed under local anesthesia, and the average patient experiences little shock.

Outside the lung field, less surgery is being done on tuberculous lesions than at the beginning of the century. The classical work of Rollier has demonstrated that with reasonably early diagnosis many cases of glandular and bone tuberculosis can best be handled by the heliotherapy regime. On the average, the risks are less and the end results better. A sharp distinction must be made, however, between the pulmonary and so-called surgical cases if grave injury is to be avoided. Experience has demonstrated that pulmonary cases are often seriously harmed by exposing the naked body to sunlight. It is to be regretted that a large group of physicians do not appreciate this fact.

It is also worthy of critical comment that a sizable group of doctors do not grasp the fact that a tuberculous patient with fever should be confined to bed. Most physicians appreciate the virtues of fresh air and exercise. Many seem to have great difficulty in associating fresh air and rest. We have a right to ask that the physician offer a very convincing explanation for his failure to suggest complete bed rest for a tuberculous or any other sort of patient who carries fever.

There are several phases of the tuberculosis problem which should interest physicians in Colorado. The report of the committee on tuberculosis of the Twenty-seventh General Assembly states that one person in ninety-nine in Colorado is suffering from tuberculosis. The total exceeds 10,000 and includes 337 native-born cases. I shall not open any controversy regarding a state tuberculosis sanatorium for Colorado. It may be that those who oppose the establishment of such an institution are correct in their fear that it would lead to the treatment of hundreds at state expense who nominally have a legal residence in Colorado but who rightfully belong in other states. Such argument, however, makes no provision for those bona fide residents of the state who need treatment. Personally I care not where they are treated so long as treatment is adequate and quickly available. As a compromise measure it seems fair to suggest that for a few years governmental agencies provide treatment in established institutions. Such a plan would seem practicable in view of the fact that the trek of the tuberculous patients to Colorado is unquestionably on the decline.

That tuberculosis is an economic problem of major importance is shown by the direct per capita expenditure of twenty-eight cents for direct relief. It totals 15 per cent of the state's entire relief program. While the total number of indigent cases in Denver and Colorado Springs has declined materially during the past ten years, the per capita expense has increased. We are reaping the harvest from a lot of foolish propaganda regarding the importance of climatic treatment. It would be a wholesome thing could Colorado summon courage to announce that climate is a negligible factor in treatment unless supplemented by adequate medical supervision for at least one year. We should go farther and, through official or unofficial agencies, make it perfectly clear to new arrivals, tuberculous or otherwise, that we have no royal welcome to extend to those who are likely to become public charges. To those who are shocked by such callous arguments, I can only reply that self preservation is still the first law of nature. We have a little old man of the sea on our backs who prevents the proper discharge of our obligations to our citizens. Our first duty is to Colorado's own and not to the stranger in our midst. When it becomes a matter of record that New York, Mississippi, and Minnesota are making a bid for Colorado's paupers it will be time enough to start bidding for theirs. Tuberculosis is first, last, and all the time an economic problem. It cannot properly be solved by this or any other state which dissipates its energies.

DISCUSSION

Herman Schwatt, Spivak: In this paper Dr. Harris started out by saying that a good case could be made out by the pessimists and the optimists in the situation regarding tuberculosis. One of the most unpopular things today, especially in a society devoted particularly to the study of tuberculosis, is to express pessimistic opinions regarding the accomplishments we have to our credit for the past twenty or twenty-five years. However, those of us who have been in the game twenty years and over are somewhat inclined to be a little pessimistic, particularly those of us

who have done institutional work for that period of time and have seen thousands of consumptives coming and going, and perhaps have followed them up for many years. I said that it was unpopular to be pessimistic, and especially so in regard to the anti-tuberculosis movement. We have been going along many years, and we have been patting ourselves on the back about the great accomplishments of the anti-tuberculosis movement. I am not here to deny that some very wonderful and substantial things have been accomplished. One of these is the decline in mortality, which has been marvelous. However, I do not believe that anyone can ascribe it entirely to any one definite factor and especially give full credit for it to the anti-tuberculosis movements. The fact of the matter is that during the past few years there have appeared hundreds of papers analyzing the causes of the decline in tuberculosis mortality, and those of us who have followed that literature are a little bit confused as to just where we should place the credit. Another thing is that the decline in tuberculosis started many years ago before there was any organized anti-tuberculosis movement. My opinion is that until the anti-tuberculosis movement becomes a specific one, and not against social and economic conditions, we are not going to get very far with the morbidity of tuberculosis. We have reduced the mortality, unquestionably, but as far as the morbidity is concerned I do not think we have accomplished very much and, as a matter of fact, with our present means we are practically helpless. Unquestionably, social and economic factors have had a great and tremendous part in the reduction of mortality. At the close of a good many years of advance of knowledge in tuberculosis by the anti-tuberculosis campaign, we are still confronted with the same condition as was expressed many years ago, I believe, if my memory serves me right, in a presidential address before the National Tuberculosis Association, when a summary was made of what we know about tuberculosis, and what we did not, and the conclusion was that we know very little.

Since that time we have made considerable progress, but even today we know very little about the most important point of all, and that is the tubercle bacillus. Great emphasis has been laid and splendid work done on childhood tuberculosis, but the fact remains that we have absolutely no definite knowledge of childhood tuberculosis with reference to adult tuberculosis. We do not know today, although it is generally accepted, that adult tuberculosis is the development of an infection acquired in childhood.

Arnold Minnig, Denver: With regard to the contacts, it still is an open question. We know of the infectiousness of childhood tuberculosis, it is true. There are two types of infection as we classify them: the exogenous and the endogenous. The endogenous is, we think, acquired in childhood. A number of years ago I made a study of 6,000 consecutive tuberculosis cases in the Denver Municipal Tuberculosis Dispensary. My object in studying those cases was to find out the extent of exogenous infection, especially in marital tuberculosis. At that time I found where there was tuberculosis in one or the other consort, that the other consort developed tuberculosis in about eight per cent of the cases. I also found that where one of the consorts died of tuberculosis, in other words, where the tuberculosis was particularly massive, that one out of two of those consorts died of tuberculosis, so that 50 per cent of the marital tuberculosis consorts subsequently died of tuberculosis. It seems to me that is the most convincing proof we have to establish that there is such thing as exogenous tuberculosis infection. In regard to the indigent tuberculous patient coming to Colorado, it seems to me that during these times of depression that that is a particularly vital problem. What I mean is that at the present time in the Denver Municipal Tuberculosis Dispensary, with which I have been connected for about fifteen years, we have noticed more patients than ever in its existence. These people are coming out here, and it seems to me if we can judge by the poverty stricken conditions in Germany during and after the War, that this condition is going to become worse. I do not want to be a pessimist, but it seems to me this winter is going to be particularly bad. In regard to the prognosis of bilateral tuberculosis, I would not want to take the same pessimistic attitude as one of the speakers. We are giving bilateral pneumothorax in these cases and we are prolonging lives.

I. D. Bronfin, Denver: I do not think it wise to be a pessimist, not because it is unpopular, but because it is not a healthy state of mind. The article which appeared in a lay magazine from the pen of a well-known tuberculosis specialist, in which he attempted to prove that the anti-tuberculosis campaign had very little to do with the reduction in mortality from tuberculosis, did more harm than good. It is true that the decline in mortality started long before 1904 when the National Tuberculosis Association came into existence; nevertheless, one can't help but feel convinced that the anti-tuberculosis movement which disseminated health education among all classes and aroused public consciousness, resulting in a rapid increase of sanatoriums throughout the country, housing thousands of consumptives, was a potent factor in reducing infection. With regard to our results, Dr. Schwatt has a right to be pessimistic; so am I, but that is due principally to the type of clinical material we have been handling. Those patients that have come under the care of Dr. Schwatt and myself in Denver had been sick a number of years. For the same reason our pneumothorax results were not as good as in institutions where early cases come for treatment. Therefore, regardless of the personal experience which I have had, I do not feel greatly discouraged about the ultimate success of the anti-tuberculosis movement. That effort must not be discouraged, but, on the contrary, given all the support in its onward march for better health. Favorable economic conditions in past years have given us a sense of false security. Dr. Minnig's statement as to the relationship between the present depression and tuberculosis is well taken.

F. B. Stephenson, Denver: We have in Colorado, as you all know, an organization known as the Colorado Association, which is advertising Colorado in order to increase the tourist patronage in the state. They were kind enough to consult the Colorado State Medical Society with regard to the kind of answers they should give to sick people who inquired about the health-giving qualities of our climate. The executive secretary's office drew up a certain set of statements to guide them in what they should say to those people. I am not sure it covered all the suggestions that Dr. Harris' paper contained. I think it would be well for our secretary to review the instructions and to revamp them in any way that might be necessary to cover the points that Dr. Harris makes in that regard—the matter of the indigents, and of medical care after they get here.

GERIATRICS*

C. O. GIESE, M.D.
COLORADO SPRINGS

Geriatrics is the term now generally adopted in referring to that division of medicine which has to do with the recognition and treatment of diseases and conditions peculiar to old age. It is derived from the Greek "geron," meaning old man, and "iatrikos," meaning medical treatment. It is evident that the etymological construction is not correct, but euphony and expediency have evidently been considered of more importance than correct grammatical construction.

In a general way, geriatrics is the opposite of pediatrics. Both are defined by age limits only. Consequently they necessarily comprise a wide diversity of diseases, and it is only with the preponderance due to age that we are concerned. It is worthy of note that A. Jacobi, the founder of modern pediatrics, was asked to write the introduction to geriatrics, by Nascher, published in 1914, and was again asked in 1924 to write the introduction to the book on geriatrics published by Thewlis. Both pediatrics and geriatrics have one definite and one indefinite boundary line. Pediatrics begins at birth and extends approximately to the age of fourteen, the age of puberty and adolescence, the period when the child becomes the medical adult. Geriatrics, on the other hand, begins at that rather indefinite period when changes due to age begin to manifest themselves. Roughly, this period is at the age of fifty, and extends to the time of death. It is in these boundary lines that is found the principal reason why medical interest in pediatrics has increased until this subject is now one of the most important divisions in medicine, and why interest in geriatrics has grown so slowly, and the literature dealing with geriatrics is far from voluminous. The pediatrist sees as his goal the healthful adult, able to compete with his fellows in the economic and social world. He has much to spur him on. The geriatrist, on the other hand, begins his work only with evidence of age, and sees as his only goal the prolonging of health, comfort, and efficiency, knowing that his ultimate defeat is certain.

The greatest victories in medicine have been achieved in the prevention and treatment of infections, and particularly those of bacterial origin. These infections are much more common in early life, before the period when the practice of geriatrics begins. The result is that both morbidity and mortality incident to these infections have markedly decreased. A few illustrations may be of interest.

MORTALITY RATES PER 100,000

	1911	1927
Typhoid and paratyphoid	21.0	5.50
Measles	10.0	4.1
Diphtheria	18.9	7.8
Tuberculosis	140.0	71.3
Pneumonia (1912)	132.4	80.6

The attractiveness of child study and child research is evidenced by large endowments that apparently are easily secured for work along these lines. Equally large endowments are available to carry on research against certain infections, as for example, typhoid fever, tuberculosis, diphtheria, hook-worm, etc. Bearing in mind the early slogan that it is perfectly possible to eliminate every infectious disease from the face of the earth, much advance has been made, and the history of modern medicine is replete with these victories. Endowments, the income of which is intended for the aged, often takes the form of the establishment of "homes" or "retreats," the idea apparently prevailing that food and shelter and simple amusements are the necessary concomitants of declining years. Practically we can deduce from the above that due to the increased expectancy of life in early years, there are more patients of mature years who will evidently consult us. Dublin has so clearly pointed out that the span of life is no longer than it was, but the expectation of life has markedly increased. Twenty years have been added to the average length of human life since public health work began to be actively practiced in the early eighties. This gain is directly traceable to the reduced mor-

*Read before the Sixty-first Annual Session of the Colorado State Medical Society at Colorado Springs, Sept. 16, 1931.

tality of infants and to the reduction of the unnecessary deaths of young persons from preventable diseases, such as typhoid fever, diphtheria, scarlet fever, smallpox, and host of other diseases which, for the most part, affects persons under forty or fifty years of age. On the other hand, the span of life seems to be fixed by the nature of man himself. His internal structure wears out after so many years of work and use, and he appears unable to master its weakness or give it stamina to last longer. It is quite probable there are no more individuals 100 years of age or more at the present time than there were many years ago. Physicians are therefore more and more confronted with the so-called degenerative conditions or diseases—those incident to middle life and old age. The medical history of the patient naturally increases in importance with the age of the patient. The infant has no previous history. It has only the background of heredity and consideration of its environment. In an adult, we have superimposed on heredity and environment the effects of habits and usually many diseases and accidents. The older the patient the more battle scarred is our subject. In addition to this we have of course the changes incident to age, which cannot be considered frankly pathological, but nevertheless have an important bearing on treatment. The proper medical conception of the case which confronts the geriatrist is far more complex than that confronted by the pediatrist.

As to the causes of old age, senility and death, there is comparatively little to be said. My old professor of botany used to say, "a tree is potentially immortal." This same statement is true of the lowest forms of animal life. They have no phenomena of growing old, there is constant rejuvenation, but in the development of the higher organisms, and particularly in man himself, a high degree of differentiation is introduced, and differentiation involves the loss of power and replacement. The cells are impaired as age advances, and this means but one thing—the ultimate death of the individual. "To the differentiation which has been accomplished through long, unmeasured periods of time, we owe the faculties and privileges which we enjoy, our power of thought, our vast stock of emotions and memories, and all those great and varied resources which make possible to each of us a life rich, manifold, and interesting, but the price of all this is dissolution."

Historically, however, the geriatrist has much to encourage him. Goethe wrote most of his best poems after his seventy-fifth birthday. Herbert Spencer died at the age of eighty-three, and though more or less of an invalid for forty years prior to his death, produced some of his best works during that period. Darwin wrote the "Descent of Man" at the age of sixty-two. Washington Irving completed his "Life of Washington" at the age of seventy-six. Edward Everett Hale lived to the age of eighty-two. Wm. Cullen Bryant remained in harness until his death at the age of eighty-nine. Jacobi practiced medicine for sixty-three years. W. W. Keen wrote his "System of Surgery" when he was past seventy.

The membership of the Colorado State Medical Society and the American Medical Association contains the names of many well past their three score years and ten, yet active, valuable members of these organizations, whose advice is eagerly sought, and to whose guidance we would do well to refer.

As physicians we are much too prone to pass over lightly the complaints of the aged, attributing them to senility and old age, when more intensive study with the idea of correction, or at least relief, would prolong efficiency and prevent future distress, which is the end and aim of geriatrics.

That this paper may contain a few practical suggestions to the practitioner, we have attached a table compiled by the Milbank Memorial Fund. This table is the result of the study of about 100,000 white males of miscellaneous occupational groups. From this table we can perhaps secure some practical ideas.

That the aged are by no means exempt from the infections found in early life, a study of 500 cases in our own practice shows abundant evidence. Of these 500 cases, 14 per cent or seventy-one cases apparently developed pulmonary tuberculosis after the

SUMMARY OF IMPAIRMENTS ACCORDING TO AGE

Group	Decrease With Age	No General Trend	Slight Rise With Age	Marked Rise With Age
Eye		Diseases of external eye or eyelid		Defective vision Eye ground changes Cataract
Ear	Otitis media	Wax in ears	Perforation of Drum	Defective hearing Practically total deafness.
Nose and Throat	Deflected septum Hypertrophic rhinitis Naso-pharyngitis Frequent colds Enlarged, diseased tonsils	Infection nasal sinus Atrophic rhinitis	Polypi, growths, ulcers Chronic laryngitis	Perforation of septum.
Respiratory	Tuberculosis		Abnormal signs not suggestive of tbc.	Emphysema Asthma.
Teeth		Slightly infected gums		Pyorrhea Carious teeth.
Heart				Enlarged heart Organic valvular and myocardial changes Intermittent pulse Functional murmur
Blood Vessels and Pressure		Rapid pulse Low blood pressure		High blood pressure Arterial hardening
Varicose Veins Etc.		Varicocele		Hemorrhoids Varicose veins.
Stomach and Abdominal	Tenderness, region of appendix	Weak rings Ulcer of stomach "Acid stomach" Gastric disturbances	Constipation Habitual use of laxatives.	Hernia Enlarged liver Tenderness, g.b. area Gastroenteroptosis
Genito Urinary		Syphilitic lesions	Testicles hard and tender	Stricture urethra Enlarged prostate Frequent or painful urination Cystitis
Brain and Nervous		Exaggerated reflexes	Ataxic gait	Sluggish reflexes Positive Rhomberg.
Urinalysis	Low sp. gravity		Pus and sugar	Casts and albumin
Miscellaneous	Mastoids		Paralysis	Edema Neuralgia, neuritis.

age of fifty, or at least they sought medical advice for symptoms referrable to that disorder. In the treatment of the aged, the fullest consideration should be given to the habits and manner of life of the patient, even to the use of alcohol and tobacco. Probably the most marked exception to this general rule is to be made in the matter of diet. A correction of too much or too little often works wonders. Institutional care for the aged, especially when limited to those mentally adjusted to it, certainly prolongs life remarkably. It can hardly be said to prolong efficiency. A regular life, supplemented by a well planned diet, with as much individualism as is possible, constant medical observation, and above all freedom from worry and care, are important factors. These patients usually do not worry about their fortunes—for they have none.

Physicians should be careful observers of those who maintain health and vigor to an advanced age and an attempt be made to utilize that information in the advice and treatment of those coming under their care.

A final word as to the general principles which should govern the practice of geriatrics. Thewlis well says, "Geriatrics is based upon three fundamental principles: (1) that senility is a physiologic entity like childhood and not a pathologic state of maturity; (2) that disease in senility is a pathologic condition in a normally degenerating organ or tissue; (3) that the object of treatment in senility should be to restore the diseased organ or tissue to the state normal to senility, and not a restoration to the condition normal in maturity."

DISCUSSION

John B. Crouch, Colorado Springs: Dr. Giese has brought before this Society, I will not say a disease, but a condition which not only should be but is of more interest to the medical profession today than formerly. It is of more interest to the medical profession because we have more people that reach middle age or past. As the infectious diseases are being gradually conquered, more people live to middle age, and consequently more have degenerative diseases. You all know that today heart disease, which is more common in middle age or past, is the leading cause of death; that arterial degeneration, cerebral apoplexia, and cancer, have also passed tuberculosis as a cause of death. In other words, we have to treat these people that have the diseases of middle age or past. It is peculiar when you look at old people how these things overlap, how cardiovascular diseases have a great influence upon kidney disease, how the cardiovascular diseases have great influence upon mental degeneration, how it influences the deaths from apoplexia—in other words, you can go right back over the thing and almost get them back to the circulatory system. The same thing is true of prostatic trouble in men. I think a note of warning should be sounded to people who come to middle age, and that is over-exertion. I think many men past fifty take too much exercise, they play too much golf, or indulge in too much physical activity. Again, I think it is very wrong for them to retire even from business, as they do. If they can keep their mental faculties active, they are very less likely to have mental degeneration. A man past middle life should have a hobby whereby he can occupy his time and keep his mental processes active. One of the best treatments, perhaps, for old age would be a good competence, not to have to worry about how they are going to have to live when they become old. I think poverty causes much sickness among the aged, or much degeneration. Perhaps, when you sum it all up you can say that family inheritance plays a greater role than anything else in the aged. You inherit your vitality, I think, more than any other one thing. Longevity is inherited. This probably sums its up better than anything that I know of, and I believe if you want to live a long life and be active in your old age you should choose your ancestors.

O. S. Fowler, Denver: The care of the aged has always been a most fascinating phase of my work. It seems to me as I look back into my medical training that certain of the very elderly men gave me inspirations that have helped me a great deal. I feel that Dr. Giese has brought up a subject to which we should give our attention, and I want to discuss it somewhat from a surgical standpoint. In pediatrics, children usually have only one disease at a time, or one thing to disturb. In the aged, they may have two or three, or four or five things at the same time, and you have to take care of them from a surgical standpoint with most extreme care in order not to lose them unnecessarily even in small operations. I believe that the treatment in the geriatric period begins in the pediatric period. If our care in early life and middle life, young life, has not been good, we are going to be cut short in our later years. And I want to speak especially upon the matter of our advice to individuals who have reached the age of fifty or sixty, and I think it extremely unfortunate that we sit rather silently in advising these elderly people in later years. I mean they should have been advised in earlier years about various lesions which were known. For instance, an individual should not approach a geriatric age with hernia, gall-stones, diseased tonsils or kidneys, all of which are more or less curable at some stage in life. I had a recent experience with a woman who had been having health examinations twice a year, and at the same time she had a pyelitic necrotic kidney as big as a grape fruit. Somebody is neglecting these things. That kidney had been there for years with a simply a pyelitis with obstruction—perfectly curable—and yet she may die with kidney disease. Then, six or eight months ago I saw two cases of typhoid, who died of kidney disease that should have been corrected twenty-five or thirty years before. I cannot feel that we have been doing our duty towards these individuals as they are approaching the beginning of their later years. We should not have to handle these people with three or four lesions at the same time. Recently a man over seventy had a most terrible set of teeth, enlarged prostate, and post-operative hernia—all giving trouble— and yet with extreme care that man today, as he appears, is going to have ten years more in his life to live, and it did not seem as if he were going to live more than one or two. These cases must be handled surgically quite distinctly from the younger individual. We must be more careful with the anesthetic, we must be more careful of the tissues and in the pre-operative preparation, and in the post-operative care. You think they are only going to live a short time anyway and start them out on cathartics. They probably have been using cathartics and are dehydrated away below par, and yet if you give them physiological procedures in the care of their bowels and in the care of their kidneys, their lives can be extended very materially.

The malaria treatment of general paralysis of the insane is now generally considered the most effective treatment of this condition. As a result the Public Health Service receives each year an increasing number of requests for infected mosquitoes for inoculation purposes. Plans are now under way to supply this need and to make further studies of this method of treatment in cooperation with various institutions where it is being applied.

The medical profession is beginning to realize more and more that we can not shut our eyes to the various social and economic problems which crowd themselves into our activities, and which are so closely related to medical practice. It is also well for the public to realize that while medical organizations do not have extensive research bureaus to prepare statistics and graphs, the fact, nevertheless, remains that the practicing physician contributes his share, and more than his share of social and communal work without financial reward.

HEAD INJURIES*

WALTER D. ABBOTT, M.D.
DES MOINES, IOWA

The increasing frequency of head injuries, with their appalling mortality, brings forth a demand for clearer vision in the management of these cases. On all sides our view is obscured by innumerable warnings, classifications, modes of treatment and general discussions, so it is the purpose of this paper to present a plan which, although far from perfect, has been effective in reducing the death rate.

Classification

There are many splendid classifications of head injuries and, although extremely comprehensive, they have seemed unwieldy. All major head injuries, those in patients who have been at least momentarily unconscious, have been grouped under four headings which in my experience has seemed satisfactory. This classification is as follows:

1. Massive brain damage.
2. Skull fractures and scalp lacerations. (a) Without evidence of localized brain damage. (b) With evidence of localized brain damage.
3. Cerebral concussion.
4. Middle meningeal hemorrhage.

Massive brain damage is hopeless as most of these patients die within the first few hours after admission. Drastic surgery is contraindicated because it is futile, and only palliative methods should be employed.

Skull fractures and scalp lacerations, together with the third group, constitute the larger portion of head injuries and demand vigilance, deliberation, and conservative treatment. The cases of skull fractures without localizing signs should be treated expectantly, and those with evidence of localized brain damage must be brought safely from the primary state of shock before surgical interference is considered. The management of extensive scalp lacerations will be discussed under the general plan of treatment.

Cerebral concussion may mean only a temporary loss of consciousness or a prolonged coma, either of which usually results from a dissociation between axons and dendrites as a sequel of hemorrhage or edema. Cases of this type require close attention with due regard for maintaining proper water balance, blood volume, and adequate respiration.

Middle meningeal hemorrhage constitutes a very classical entity which is evidenced by coma and progressive paralysis on the opposite side of the body. This condition is indeed a surgical emergency, but operation should be deferred until recovery from shock.

Treatment

All patients suffering severe head injuries are in a state of shock and our attention must primarily be directed toward relief of this condition. No longer is it amenable to reduction of mortality to allow an interne to practice suturing the scalp, rush the patient for x-rays, or hastily operate. The patients are put to bed, ice bags applied to the head, heat to the body, and all adults are given 50 c. c. of 50 per cent glucose intravenously. No effort to make a detailed examination or take x-rays should be attempted until the temperature is normal, the pulse below 120 and the systolic blood pressure above eighty-five. A careful recording of blood pressure, pulse, temperature, and respiration at fifteen minute intervals will determine the indications for further treatment.

It is seldom that a patient dies as a result of a fractured skull in itself, but death ensues from either hemorrhage or cerebral edema. As little can be done to forestall hemorrhage, our chief aim is to prevent cerebral edema. While it is true that the proper volume of blood is necessary to combat shock, large amounts of fluid will hasten the oncoming cerebral edema. Thus we must utilize the body fluids to supply the proper blood volume without adding extra burdens to the cerebral circulation. Hypertonic glucose will serve the purpose of combating shock by reducing intracranial pressure and

*Read before a meeting of the Association of Resident and Ex-resident Physicians, Mayo Clinic, Rochester, Minnesota, Oct. 9, 1931.

at the same time utilizing fluids in the tissues to fill the need of more volume in the blood stream.

A persistent pulse over 120 is regarded as a demand for more fluid and this can be supplied by repeating the glucose at four hour intervals. If the patient has lost a great deal of blood it may be necessary to use 100 c. c. of gum acacia which is put up in ampoules of 300 c. c. by Squibb. A pulse rate below seventy is indicative of increased intracranial pressure due to hemorrhage or edema and every effort must be made to determine the cause. If the patient is safely out of shock, magnesium sulphate may be given as a retention enema. Three ounces of this salt in four of water is very effective in reducing cerebral edema; however this drug must be used with caution as it has a tendency to rapidly deplete the blood stream. Often it is desirable to constrict the peripheral vascular bed; atropine has proved most valuable in producing this effect as well as act as a respiratory stimulant. Blood pressure readings are an indication of the efficiency of the vascular system and as such are valuable. The systolic pressure represents the force of the heart against peripheral resistance and there is little cause for concern when maintained above eighty-five or below 175. The diastolic pressure is the veritable index of life, as it represents the tone of the peripheral vascular bed. A diastolic pressure below sixty means a rapid loss of oxygen from the blood, and it is obvious that cells must be supplied with proper nutrition. A rising pulse pressure usually indicates a falling diastolic with failure of the systolic pressure to compensate, and unless adjusted the result is anoxemia, alkalosis, edema, and tissue death.

The respiratory rate is a reliable barometer of vital function and often is a forewarner of medullary compression and death. A respiratory rate over forty indicates marked cerebral disturbances and permits rapid loss of carbon dioxide which produces alkalosis and edema. Often apparently hopeless cases are allowed to rebreathe their own carbon dioxide by placing a wet towel over the nose and mouth with a small oxygen tube and have recovered. A respiratory rate below sixteen means marked intracranial pressure and demands dehydration.

As morphine is a respiratory depressant it should never be given to a patient suffering a brain injury. Codeine and bromides usually suffice to allay pain and quiet the patient.

A rise in temperature over 102° indicates cerebral edema and a change in the thermal center. As many brain cases die with a hyperthermia, all rises in temperature above 102° should be checked with cold packs, spinal drainage, and colonic flushes. Thus frequent readings of pulse, blood pressure, respirations, and temperature will clearly determine the indications in each case.

The chief means of combating cerebral edema are spinal puncture, intravenous administration of hypertonic glucose, dehydration with magnesium sulphate, and limitation of fluid intake. As soon as the patient has recovered from initial shock, a spinal puncture should be performed to determine the amount of pressure, presence of blood, and to relieve the burden on the cerebral circulation. Spinal puncture and drainage should be repeated if the pressure remains over 20 cm. of water or is bloody. The old emergency decompression has been supplanted by frequent spinal drainage and dehydration with an appreciable reduction in mortality. Little is to be feared if close attention is paid to manometric readings and care is taken not to withdraw the fluid too rapidly. Fifty c. c. of 50 per cent glucose can be repeated at four hour intervals if indicated by coma, slow pulse, and labored respirations. Magnesium sulphate by mouth or in a retention enema is effective in reducing cerebral edema and can be used twice in twenty-four hours for the first three days if necessary. Fluids should be restricted to twenty ounces for the first ten days and then to forty ounces for three weeks to prevent complications.

Operative Treatment

Scalp lacerations should be thoroughly cleansed, preferably by gentle washing instead of swabbing with a germicide, sutured, and a drain inserted for twenty-four hours.

Often compound fractures are filled with dirt as the wound is badly macerated, and in these instances debridement is the procedure of choice. It is obvious that anti-tetanic serum should be given. Elevation of depressed fractures can safely be attempted after recovery from shock and when definitely indicated by x-ray or focal signs.

Ligation of the middle meningeal artery saves life and function in the paralyzed contralateral extremities. However with dehydration and deliberate judgment, operative indications in head injuries are at a minimum. No longer is it justified to perform an "emergency" decompression when cerebral edema can be so effectively reduced with much less risk.

Review of Cases

To illustrate the above points a critical review of thirty-three consecutive head injuries is presented.

TABLE ONE

Thirty-three Head Injuries

Mortality	21.6 per cent
Died in eight hours	9.9 per cent
Died in twenty-four hours	6.6 per cent
Bloody cerebrospinal fluid	63.6 per cent
Unconscious	84.8 per cent

It is gratifying to note the reduced mortality as contrasted with ten or fifteen years ago when emergency decompressions were the vogue. This is due to conservative treatment, early hospitalization, and a rigid dehydration regime.

The cases that died within eight hours were so severely injured that treatment was futile. The remaining number that died within twenty-four hours suffered gross cerebral hemorrhage and were moribund from the time of accident.

Spinal puncture revealed bloody fluid in 63 per cent and it was interesting to note the marked degree of relief obtained by frequent spinal drainage.

Of all the cases 84.8 per cent were comatose for varying degrees of time, but the majority responded to conservative measures.

TABLE TWO

Cases operated (12.1 per cent).

Middle Meningeal Hemorrhage	1
Gross Hemorrhage	2
Depressed Fractures	2

Operative indications in the average run of head injuries should not be as high as 12.1 per cent. Thus it is obvious that in this series an error in diagnosis was made. This occurred in the two cases of gross hemorrhage, both of which gave clinical signs of middle meningeal hemorrhage, but on exploration it was found that the temporal lobe was lacerated and the middle cerebral artery severed. The two cases of depressed fracture were severe compound injuries, but both made a nice recovery. The one case of middle meningeal hemorrhage was the result of a linear fracture through the foramen spinosum, and it was necessary to plug this foramen to arrest the hemorrhage.

TABLE THREE

Complications (12.1 per cent).

Osteomyelitis of skull	2
Epilepsy	1
Hemorrhagic Arachnoiditis	2

The two cases of osteomyelitis of the skull resulted from extensive scalp lacerations which were badly macerated, and in spite of debridement, infection set in. It has been my custom to perform a block resection of the infected bone rather than removing it piece by piece until healthy bone is reached. Both of these patients have gone six months without a recurrence, and I feel that it will be safe to cover the defect with a sliding bone graft. The case of epilepsy produced Jacksonian convulsions, and exploration revealed scar tissue in the parietal lobe. This tissue was resected with the electro-surgical unit. Nine months have elapsed without an attack. The two cases of hemorrhagic arachnoiditis resulted from head injuries which at the time did not appear very severe although the cerebrospinal fluid was bloody. However, one case developed choked discs, became blind, and lapsed into coma. As there were no localizing signs, a ventricular study was made which revealed a pushing up of the posterior horns of the lateral ventricles. On cerebellar exploration a cystic collection of old blood in the cisterna magna was found. The contents of this cyst were drained and the patient made an uneventful

recovery. The second case followed a basilar fracture on the left side and developed an aphasia, personality change, and persistent headaches. Encephalography revealed a compression of the temporal lobe and a large collection of air under and medial to the temporal lobe. At exploration a subdural hematoma was found compressing the temporal lobe, but removal of the clot did not permit the brain to pulsate. However when the temporal lobe was elevated and three ounces of old bloody fluid were drained from the cystic cavity beneath, the brain pulsated and all symptoms were relieved.

Summary

1. Head injuries primarily produce shock and should be treated for such before drastic methods are considered.

2. A careful check of blood pressure, pulse, temperature, and respirations will indicate the amount of dehydration necessary to maintain proper water balance, blood volume, adequate respirations, and to reduce cerebral edema.

3. With faithful adherence to such measures as spinal drainage, hypertonic glucose solution intravenously, magnesium sulphate by mouth or bowel, and deliberate judgment, the operative indications are markedly reduced.

4. A critical review of thirty-three head injuries is presented with a mortality of 21.6 per cent, complications in 12.1 per cent, and complete recovery in 66.3 per cent, all of which have been treated on the above plan.

THE RESPECTIVE INDICATIONS OF CHOLECYSTOSTOMY AND CHOLECYSTECTOMY

AIME' PAUL HEINECK, M.D.*
CHICAGO, ILLINOIS

Surgical treatment should be instituted at the onset or in the early stages of gall bladder disease, before the advent of such preventable complications as common duct obstruction (calculous or non-calculous), rupture or perforation of the gall bladder into the free peritoneal cavity or into an adjacent viscus, various forms of pancreatitis—in a word, before the pathology is so far advanced that restoration of the normal function of the gall-bladder is doubtful. During the early stages of cholelithiasis or of cholecystitis, the operative difficulties are minimal, the mortality is practically negligible. and improvement and cure easier of attainment. In the young, the percentage of recovery is high, the operative mortality very low.

When disease of the biliary tract is complicated by surgical disease of other abdominal or pelvic viscera, should the patient's condition not warrant a prolonged operation, the surgeon will do all that is consistent with the patient's safety and defer further operative work to a more propitious time.

In diseases of the gall bladder and bile ducts, cholecystotomy is the operation of election under the following conditions:

1. In the aged, the feeble, the obese, and in all patients whose general condition does not permit of more than the least amount of required operating; in the presence of cardio-vascular, advanced cardio-renal, advanced hepatic disease; in all cases in which a prolonged operation or an extensive dissection might be productive of severe shock or might cause death; in all critical cases, as an emergency operation when great debility or other conditions such as deep jaundice due to stone in the common duct, necessitate haste and make cholecystectomy too dangerous or too prolonged an operation at that time. It is a good surgical principle not to subject patients to more than the minimal amount of trauma consistent with their general condition and the indications present. A very short incision immediately over the gall bladder and the insertion into it of a drainage tube or gauze constitute almost a minor operation.

2. In cases associated with pregnancy.

3. In cases associated with pancreatic disease.

4. In all other patients in whom the

*Surgeon to the Frances Willard, St. Paul, and Lakeside Hospitals.

existence of complications or disease of proximal organs make cholecystectomy too hazardous or too risky.

5. In deep jaundice, due to calculous or non-calculous occlusion of the common duct or to its compression by adhesions or by the head of the pancreas. Decompression of the liver by drainage with the minimal interference is indicated in deep jaundice. In deep jaundice, owing to the decreased coagulability of the blood, there is great danger of fatal postoperative hemorrhage. In these patients, the question of hepatic function must be seriously considered.

6. If the gall bladder be very intimately adherent to the surrounding organs. Adhesions may so firmly glue the gall bladder to surrounding structures that its removal necessitates the dissection of inflamed tissues and leaves raw surfaces, potential portals of infection. Duodenal and other intestinal fistulae have resulted from the separation of dense adhesions binding the gall bladder to the gut.

7. In cholelithiasis, for the removal of gall-stones from any or all of the following locations: Gall bladder, cystic or common duct, provided that the gall bladder presents a normal appearance or is only slightly diseased and the cystic duct neither ulcerated nor strictured. The chief causes of relapse in gall bladder disease is the leaving behind of undetected stones and injudicious postoperative care. In the absence of valid contraindications, all gall stones call for operative removal. Early removal of biliary sand and gall stones has been advised as a prophylactic measure against malignancy.

8. In the early stages of cholecystitis, calculous or non-calculous, when the gall bladder is but slightly altered and the cystic duct is patulous, removal of stones and drainage may be followed by return of function and restoration of the organ to normal structure. There are mild degrees of cholecystitis that do not produce thickening of the gall bladder wall.

9. In acute pancreatitis complicating gall bladder disease. The association of gall stones and pancreatitis is variously given as between 50 per cent and 65 per cent. Mayo reported that in 80 per cent of the operations on the pancreas, there are lesions induced or accompanied by gall stones.

10. In all cases, traumatic or pathologic, in which there is imminent danger of postoperative stricture of the common duct, also in those in which a stricture being present, there is no hope of re-establishment of the patency and function of the common duct. In the presence of these conditions, the necessity of anastomosing the gall bladder to the gut may be immediate or may arise at some future time. After cholecystectomy a short-circuiting operation between the gall-bladder and the gut is not feasible.

11. In the course of all laparotomies in which you have not encountered infection and the patient's condition warrants it, examine the gall bladder. Palpation may reveal the presence of gall stones. As in these cases, the calculi have not caused marked symptoms and the gall bladder wall usually presents a normal histological structure, cholecystotomy suffices.

12. In certain cases of cholangitis accompanied by icterus and enlargement of the liver and pancreas.

13. In certain cases of malignancy with obstructive jaundice due to carcinoma of the common duct or of the head of the pancreas. In these cases, if radium treatment be thought desirable, the gall bladder can be used as an avenue for its application.

14. In all cases where temporary drainage of the gall bladder and bile ducts is indicated: (a) presence of infected foci in the liver; (b) to secure the expulsion of stones overlooked at time of operation; drainage permits spontaneous discharge of small intrahepatic concrements as they pass downward along the ducts.

15. In all cases where the mechanical difficulties incident to a cholecystectomy are great and make the operation extrahazardous.

16. In biliary cirrhosis. According to Deaver, biliary cirrhosis is permanently improved or cured by prolonged gall bladder or common duct drainage.

Convalescence after a successfully performed cholecystectomy is short, attended

with less discomfort, and is less complicated than after cholecystostomy. Cholecystectomy gives a higher percentage of satisfactory results and calls for a smaller percentage of secondary operation. The postoperative course is as uneventful as that of a salpingectomy for pyosalpinx. Following removal of the gall bladder, recurrence of symptoms is uncommon and the percentage of cures is high; the danger of pericholecystic adhesions and mucous fistulae formation is non-existent. One of the most valid objections to cholecystostomy is the frequency with which postoperative adhesions form after its performance. "In the Mayo Clinic, cholecystectomy is performed in more than 90 per cent of cases as against cholecystostomy in less than 10 per cent."

The disadvantages of cholecystectomy are: (a) It is difficult of execution. (b) It is not of universal application. The gall bladder should never be removed unless one is certain that the common duct is patent. (c) It is attended with the danger of shock, hemorrhage, injuries to the common duct and the duodenum. (d) It has a slightly higher operative mortality than cholecystostomy. (e) It removes a useful organ, the functions of which we do not definitely know.

Cholecystectomy removes from the body a focus of infection. It is the indicated operation if the patient's general condition permits:

1. In all localized or diffuse ultra-acute inflammatory conditions: ulcerative, gangrenous, phlegmonous, or membranous cholecystitis. In all cases of cholecystitis in which the gall bladder is so altered that judged by gross evidence, "it cannot come back."

2. In acute cholecystitis when the gall bladder is very distended from blockage of the cystic duct.

3. In advanced chronic or repeated inflammations of the gall bladder. When the organ is markedly thickened, contracted, atrophied, deformed, shrunken, or adherent, and when it is evident that it can not be restored to its normal condition, when it is evident that it is irretrievably lost or that its disease is progressive in nature as in fibrous or calcareous degeneration. In these cases, the elasticity of the gall bladder wall is impaired or lost and its glandular secreting apparatus partly or wholly destroyed.

4. In a "strawberry" gall bladder—the gall bladder mucosa being covered with tiny beads.

5. In hydrops felleae due to blockage of the cystic duct, secondary to stricture or to impacted stone.

6. In empyema of the gall bladder due to an impacted stone or strictured cystic duct.

7. For the cure of pathologic fistulae existing between the gall bladder and a hollow viscus, if these fistulae are associated with disturbances calling for treatment.

8. For penetrating injuries, ruptures and perforations of the gall bladder of either traumatic, calculous, or inflammatory origin.

9. For mucus fistulae of the gall bladder resulting from stricture or other obstruction of the cystic duct.

10. In chronic obstruction of the cystic duct whether due to stone impaction, scar tissue formation, or torsion of the gall bladder.

11. In irreparable wounds or injuries of the gall bladder.

12. In volvulus of the gall bladder.

13. In benign neoplasms of the gall bladder.

14. In operable malignant neoplasms of the gall bladder.

INTERNATIONAL GOITER CONFERENCE

Dr. H. Carriéré, President of the Swiss Goiter Commission and President of the First International Goiter Conferene, officially announces:

It has been definitely decided to convene the Second International Goiter Conference at Berne, Switzerland early in August, 1933.

It had been tentatively planned to hold this Conference in The Netherlands in August of this year, but the place of meeting was changed, and owing to the existing economic conditions, the Conference was postponed until 1933.

The medical profession of America will be pleased to hear that through the efforts of a committee appointed by the President of the American Association for the Study of Goiter to extend America's invitation for the Third International Goiter Conference, sufficient support has been promised to warrant the conclusion that the Conference will come to this country in 1937. This cannot be definitely decided until next year when the American delegation presents the formal invitation to the Conference at Berne.

CASE REPORTS

A PITUITARY SYNDROME APPARENTLY RELATED TO PREGNANCY*

O. F. CLAGETT, M.D.
RIFLE

This report consists of a discussion of symptoms in the case of a married lady, aged 29, mother of a normal boy baby aged 13 months. She has two brothers and one sister living and well. Father, living and in good health. Mother died the past summer of gastric carcinoma. She had had no serious illness except the ordinary diseases of childhood. I have known her for the past eight years, and as I first knew her she was a well featured, attractive, really beautiful young lady. About four years ago she began having trouble with her left eye. She described it as a twitching of the eyeball which came on at times, especially in the afternoons. As she was teaching school at that time and doing a great deal of eye work I thought it probably due to eyestrain and requested refraction. She consulted Dr. Cary of Grand Junction who agreed it was eyestrain and prescribed glasses.

The glasses, however, did not relieve the condition entirely, and she was subject to headaches about once a week. In the next two years she had her eyes checked at least twice, but no marked change was noticed. She became pregnant early in 1930, from which time headaches became more severe and frequent. She came for examination in June of that year, at which time her blood pressure was 142/80. No albumin was present in the urine, but there was a positive sugar reaction. Her face was very edematous. In fact the whole face was thick and boggy—nose large and broad, forehead thick and ridged, and eyelids very puffy. After this I examined her as frequently as she could get to town. Her blood pressure varied between 128 and 142 systolic with diastolic at 80. Sugar varied—present sometimes, at others absent. No albumin. Her headaches had now become very troublesome at least four to five times a week. Her hands also were enlarging. In October she had a normal labor. Her convalescence was normal and she returned home on the twelfth day. Following labor there was no improvement and she now found that her old hats would not begin to go on her head. Also her feet had enlarged. Her hands that were formerly slender and tapering, were now broad and masculine. I put her on pituitary substance, 5 grains, and one-half grain of thyroid three times a day. She took this for several months without benefit, and as her vision still failed in the left eye she returned to Dr. Cary for reëxamination. Dr. Cary reported as follows: vision, right eye 20/20, left 20/200; right fundus normal; left pupil slightly larger than right; visual field much smaller than normal; all of the left nerve head whiter than in right eye; no scotoma.

I have not examined this girl for several months, but she has taken up Christian Science and says that her headaches are less frequent, and she thinks she can see better in the left eye. So far as I can see there is no external evidence in her face that shows improvement. This is unquestionably an abnormality in the pituitary body, whether a tumor, or just an hyperactivity, I am unable to say. The question in my mind is how much pregnancy was responsible for its start, and if so whether it will correct itself.

*Read before the Garfield County Medical Society, Nov. 19, 1931.

SIMULTANEOUS PERFORATION OF DUODENUM AND INCARCERATION OF INGUINAL HERNIA. DUODENAL TUBE FEEDING

JAMES RUDDY, M.D.
DENVER

A man of thirty years, who had always been well and strong except that he had the "normal" amount of indigestion, was seized with a severe abdominal pain while lifting an electric sign weighing over four hundred pounds. The pain was excruciating and was most severe in the left inguinal region, where a lump was also felt. This lump was forced

back into the abdomen by the patient and his fellow workers. The pain in the inguinal region became less after reduction of the protrusion, but continued and increased in severity about the umbilicus. The patient was not nauseated, drank water freely, and took a few aspirin tablets.

He was removed to his home and late in the evening, about four hours after the accident, medical advice was sought. At that time the pain was still very severe; the patient's skin was cold and clammy, and beads of perspiration were on his forehead. His temperature was 96.8°F., his pulse 80 and of good quality, and his blood pressure 120/60. The pain was most severe about the umbilicus, and there was still considerable pain in the lower abdomen, mostly on the left side. At this time, four hours after the accident, there was also a very sharp pain which came on suddenly in the left shoulder and disappeared almost as abruptly after about a half hour. While this pain lasted it overshadowed the abdominal distress.

Examination revealed a slightly tender abdomen of board-like rigidity. The tenderness was greatest in the lower left quadrant, but the rigidity was most marked over the upper right quadrant. Both inguinal rings were large; the left, which was tender, easily admitted the tips of three fingers. Except for the teeth and gums, which were in a deplorable condition, other examinations were negative.

Because the rigidity persisted, the patient was removed to a hospital, in spite of the fact that his pain had almost entirely disappeared without medication. He spent a comfortable night and complained only of some thirst, as fluid by mouth was withheld.

Early the following morning he felt well enough to ask to leave the hospital. At that time he had no pain, but his abdomen was still very rigid, and he was moderately tender in the right upper quadrant. His pulse had increased to 100 and his temperature to 98.6°F. The blood pressure was unchanged. A blood examination at this time revealed a leucocytosis of 19,600 with 79 per cent of polymorphonuclear cells.

In spite of the obviously incarcerated inguinal hernia and its forcible reduction with the possibility of intestinal damage, it was decided that the physical signs pointed to rupture of a viscus in the upper abdomen, most likely the duodenum.

The abdomen was opened through a right rectus incision and a perforation of the anterior wall of the first portion of the duodenum was found. There was a plastic exudate gluing the duodenum to the under surface of the liver and gall bladder. There had been practically no bleeding and the peritoneum was not much involved from leakage. The site of the perforation was only slightly indurated over an area about 2 cm. in diameter, with a hole about 5 mm. in diameter at its center. The area of induration, if no perforation had been present, would probably have been overlooked and would not have been called an ulcer in an ordinary exploratory operation. The perforation was closed with interrupted sutures cross-wise to the length of the gut, and the omentum was fastened so as to enfold the line of sutures. Gastroenterostomy was not performed. The abdomen was closed with drainage.

The closure of the perforation did not hold, and on the fourth day after the operation, gastric and intestinal secretions began to come through the abdominal incision. Except that the performance of an early gastroenterostomy is imperative, although a dangerous procedure under the conditions, the literature on the treatment of external duodenal fistula offers little information and less consolation. Instead of gastroenterostomy, it was elected in this case to use a duodenal tube, and such a tube was passed through the nose and left in situ, and through this the patient was fed. A profuse hemorrhage occurred on the sixth day, for which a blood transfusion was given. The duodenal fistula closed on the seventeenth day and the duodenal tube removed on the twenty-fifth day and since that time convalescence has been steady and uneventful.

This case is reported to emphasize the importance of remembering that any increase in intra-abdominal pressure sufficient to

produce an inguinal hernia is great enough also to cause other and more serious damage to the abdominal organs.

The feeding through the duodenal tube was an important factor and most likely responsible for this patient's recovery, and I think it served better than gastroenterostomy under the conditions. It would have undoubtedly been better to introduce the tube at the time of the operation. I believe that more frequent use of the duodenal tube for feeding in stomach and upper intestinal surgery is warranted.

PUBLIC HEALTH NOTES

Editor: J. W. AMESSE, M.D.

Infant Mortality, 1930

The statistical report of infant mortality for 1930 in 874 cities of the United States has just been issued by the American Child Health Association, 450 Seventh Ave., New York City, and reveals gratifying evidence that the infant death rate is being reduced at many points in the country. The death rate among babies under one year of age in 860 cities of the birth registration area was 62.2 in 1930, which is the lowest rate ever attained by the cities of this country. The rate in 1929 was 66.2. The lowest previous rate was 64.9 in 1927.

In the ten largest cities in the United States the rate shows a consistent reduction in every case except that of Boston. The average reduction is four points, ranging from eight in Baltimore to two in New York City, and no change in Boston.

Vital statistics would be more representative if non-resident births and deaths were charged back to the place of residence. In many cases the "corrected rates" are not materially different from the "crude rates," but in some instances there is a marked difference.

Denver is credited with the highest rate it has had since 1920 when the infant death rate was 97. In 1930, 93 infants died for every 1000 live births.

In cities with a population over 250,000, Seattle and San Francisco are credited with the lowest rates, 37 and 40, respectively. The cities in this population group that have the highest rates are Memphis, Tennessee, with a rate of 101, and Atlanta, Georgia, and Denver, Colorado, each with a rate of 93. In cities with a population of 100,000 to 250,000 those with the lowest rates are Long Beach, California, and Tacoma, Washington, with rates of 43 and 44 respectively. Those with the highest rates are Chattanooga, Tennessee, with a rate of 109, Nashville, Tennessee, with a rate of 103, and Oklahoma City, with a rate of 83. In cities over 250,000 population in the birth registration area the average rate in 1930 was 60. Denver's infant mortality rate is 50 per cent higher than the average for cities of its population group.

Of the states in the birth registration area, Washington had the lowest urban infant mortality rate in 1930, or a rate of 41. Idaho is next with a rate of 44, Oregon third with a rate of 48, and three states—Utah, Nebraska and Montana—each have a rate of 50. Colorado has an urban infant mortality rate of 88.

Dr. George T. Palmer, director of research of the American Child Health Association, and Mr. A. H. Sterner, staff assistant of the association, point out in the report that the "infant mortality rate is useful as an index of trend from year to year within the same city. One is not justified in using the infant mortality rate as a reliable measure solely of the quality of deliberate public health effort in a community. The infant mortality rate is the resultant of many forces such as the social and economic status of the community, family customs characteristic of different race and nationality groups, the health knowledge of the people, the presence of hospitals and other facilities for medical care. A low rate in one community may be the result mainly of deliberate public health effort. Another community in which organized public health effort is very meager, may still have an equally low rate, due principally to favorable social and economic status."

Health of the Preschool Child

Records in the Parent and Preschool

Health Education Demonstration of the Denver County Congress of Parents and Teachers and the Denver Tuberculosis Society reveal a growing interest in a new form of health education where the work is carried on through semi-monthly group meetings and where the emphasis is put upon the activities in the home. The average attendance at the group meetings on March 1 for the current year was 20 mothers and 20 children in contrast with 16 last year. The number of classes held per month has increased by 50 per cent —80 last year and 120 this year. On March 1, nearly 10,500 visits had been made to the centers by mothers and preschool children in contrast to 8,200 visits during the whole year of 1930-31.

The total enrollment at the centers has passed the 2,000 mark, but it is worthy of note that 1,000 additional children outside preschool age are members of the same families.

Public Health Meetings

The preliminary programs are out for the twenty-eighth annual meeting of the National Tuberculosis Association at the Antlers Hotel in Colorado Springs on June 6, 7, 8 and 9, 1932, and also for the meeting of the western branch of the American Public Health Association at the Brown Palace Hotel in Denver on June 9, 10, and 11, 1932. Both of these programs are published in the Bulletin of the National Tuberculosis Association for March, 1932.

Health and Depression

Reports from eastern cities where the depression has been prevalent for a longer period than with us in the west indicate that standards of living have fallen noticeably in the last two or three years. Social workers and nurses say that they have seen much more distress this winter than formerly. An exception is in those districts where poverty and dependence on charity are the rule in normal times. Here the report is that people are rather better off than usual because of new sources of assistance such as "free handouts" and milk stations. In families where employment has been the rule and not the exception, appeal for aid is frequently not made until the family is near actual destitution. Relatives and friends are in much the same circumstances, and all are suffering from having tried to live on an inadequate income over a long period.

There are many reports of gastric and intestinal disturbances that can be traced directly to lack of proper diet. Convalescence appears to be slower than usual. A contagious disease appears to run through a family more quickly and completely. Some of the changes in food habits noted are inferior qualities of food and less of it, less milk, less fruit and vegetables, no eggs, meat once a week or not at all.

The research bureau of the Welfare Council of New York City will publish shortly an "Impressionistic View of the Winter of 1930-31," based on statements from 900 social workers and public health nurses.

Child Health Day, 1932

"Support your community child health program: it protects your home," is the slogan announced for May Day—National Child Health Day—1932, by the American Child Health Association. Three points upon which attention will be focused are the nutrition of children, the importance of an adequate clean and safe milk supply, and the protection of motherhood.

Mental Hygiene

There are now 232 full-time child guidance clinics in the United States, according to the annual report of the commonwealth fund for the year ending September 30, 1931. In these clinics children are given care by a staff consisting of psychiatrist, psychologist, and psychiatric social worker. "Such clinics," the report states, "have won their place among accepted agencies of human betterment and will soon be fully independent of such deliberate encouragement as the fund has given them during the past decade. The fund expects, therefore, to withdraw gradually from participation in the movement to extend child-guidance services, and to center its attention in this field on the still pressing problems of training of psychiatrists, evaluation, and research."

In 1931, the fund provided seventy-four scholarships for psychiatrists and psychiat-

ric social workers as a means of increasing the supply of trained workers in mental hygiene and particularly in child guidance. A grant was made to the National Committee for Mental Hygiene toward the cost of a nation-wide survey of psychiatric education in the United States.

Child Health

The report of the sub-committee on orthopedics and body mechanics of the section on medical care of the White House conference on child health and protection can now be secured from the Century Company, New York City. The report contains 106 pages and costs $1.50. Dr. Robert B. Osgood, professor of orthopedic surgery of Harvard University Medical School, was the chairman of the committee.

"The subcommittee believes there is positive evidence to prove that no less than two-thirds of the young children of the United States exhibit faulty body mechanics and that this condition is likely to continue into adult life. It believes that the evidence gathered shows that improvement in body mechanics is associated with improvement in health and efficiency. The report urges that instruction in the principles of body mechanics and in the methods of correcting poor body mechanics be given in all medical schools, schools of physical education, and schools of nursing, and that special attention be paid to this subject in the public schools, especially the elementary grades. It makes recommendations for individual and group instruction and for methods of grading posture."

From "Child Welfare News Summary"—Children's Bureau, U. S. Department of Labor, Washington, D. C.

Child Welfare

In his paper read before the national conference of social work in Minneapolis last June, Mr. Robert W. Kelso, former director of the Community Fund of St. Louis, enumerates five vital steps in community planning for child welfare. These are as follows:

"A common forum for discussion by all child welfare interests, both public and private.

"A scientific analysis of the field of work through joint effort.

"A concrete definite plan of operation.

"Guarantee of continuous and adequate financial support.

"Interpretation of the program to the general public in such a way as to gain its intelligent support."

Cleveland's New Health Center

Ten coordinated services are arranged for in the new health center dedicated in Cleveland last July to function under the Health and Public Welfare Departments of the city. Included in the center are a tuberculosis clinic, an x-ray diagnostic clinic, school health and public health nursing service, an infant welfare station, a department dealing with the prevention of blindness, one dealing with the supervision of boarding homes for children, a baby dispensary, and a maternity dispensary. The center, which is located in one of the thickly populated districts, will serve approximately 100,000 individuals. Western Reserve University will cooperate in all the services of the center.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

Editor: J. J. WARING, M.D.

Last month a note in this column recorded the purchase by the trustees of the Medical Society of the City and County of Denver of the medical library of Herbert M. Evans, professor of anatomy of the University of California. Already $6,000 toward this purchase has been contributed by lay friends of the profession and further gifts are promised. In addition a number of the members of our society have volunteered contributions which will assist materially. Full details of the purchase may be secured from any member of the Board of Trustees, but at this time it may be stated that a considerable balance is still to be paid over the next six years. It is confidently expected that the remaining sum will be secured without much difficulty.

The library itself consists of about 1,000

bound volumes and several hundred additional reprints. Dr. Charles E. Singer, professor of the history of medicine at the University of London and now temporarily a resident in California, has examined the library and writes as follows:

"Probably the most striking part of the collection is the anatomical, which is remarkably complete. The classics, such as Vesalius, Aselli, Columbus, Eustachius, Fabricius, Fallopius, Pecquet, Spigelius, Steno, Willis, and Hunter and their like are all there, as well as the great anatomical atlases, such as Albinus, Bidloo and Cowper, Bougery and Jacob, Caldani, Berettini, Mascagni's and Teichmann's lymphatics, and Cruveillier's wonderful pathology. Embryology is of course well represented and he has von Baer, De Graaf, Pander, Remak, Rathke, Bischoff, His, and the rest in first editions. Among his von Baer's is the rare volume on the discovery of the mammalian ovum. Early microscopy is very strong, as is your own department of physical signs. He has also the first edition of Morgagni and among the items which collectors yearn for are the Jenner and Mayow and some Harveys.

"The library is also valuable for quite another reason. Lots of people have collected the older classics, but Evans has had the judgment to collect also the modern classics. Here, so far as my knowledge goes, his collection is quite unique and has been put together, in my opinion, with very great judgment."

Finally a careful check shows that only a very few books in this new collection will be duplicated by what we already have in the library. After carefully checking about half of the collection only nineteen duplicates were found and these were books of relatively minor importance. It is to be emphasized that this collection of books will be paid for entirely by voluntary subscriptions and that the ordinary means of maintenance of the library will not be disturbed in the slightest.

If our library is to grow it cannot be by the slow and painful addition of a volume at a time; it can only be by the purchase at favorable moments of collections of considerable size and importance.

The trustees are to be congratulated for their courage and foresight.

BOOK REVIEWS

Courts and Doctors. By Lloyd Paul Stryker. 236 pages. Cloth. Published Jan. 26, 1932. The MacMillan Company: New York City. Price $2.00.

The author has been for many years general counsel for the Medical Society for the State of New York and has had personal charge of the legal policy of the Society and the defense of its members who were sued for malpractice. Based on that experience Mr. Stryker has written a book designed to help a physician avoid attack and to understand the law relating to malpractice.

After lauding the medical profession in the introduction, the author discusses not only malpractice, but also other interesting subjects where the doctor comes in contact with the courts. The main divisions of the book are entitled The Practice of Medicine, The Relationship of Patient and Physician, The Action for Malpractice, Defenses to Actions for Malpractice, Expert Testimony, The Doctor on the Witness Stand, and The Doctor and the Criminal Law. In the conclusion are quoted many pertinent remarks of Oliver Wendell Holmes. A complete list of cases, references, and authorities will assist anyone who cares to study the subject in more detail.

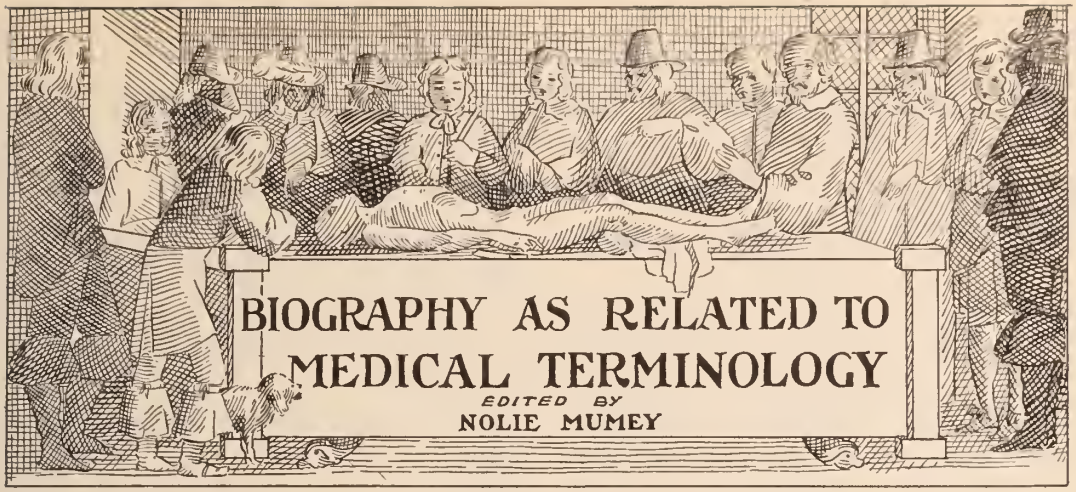
The two to three evenings spent in reading the book will never be regretted. It will be especially attractive to those who are sued or who have to testify in court. The language is not too legally technical, and the style is happily interesting. Every physician should have this book easily available. It could be used as a text for medical students in their course in medical jurisprudence.

RALPH W. DANIELSON.

"A Radiological Study of the Para-nasal Sinuses and Mastoids." By Amedee Granger, K. C. B., K.C.I., M.D., F.A.C.R., Professor of Radiology, Louisiana State University Medical Center; Director of The Department of Radiology, Louisiana State Charity Hospital at New Orleans. Gold Medal of the Radiological Society of North America in 1926 and Gold Academic Palms of France in 1929. Illustrated with 113 Engravings. Lea & Febiger, Philadelphia, 1932.

This book covers 182 pages of text and contains so much that is of value to both the Oto-laryngologist and Radiologist, that we feel it should be on the shelves of every practitioner of these specialties. Even the reproduction of roentgenograms, while a difficult process, are because of the type of paper used, fully as good as any we have seen reproduced. The markers, including the arrows on some of the plates, might be improved, as these are sometimes blurred or indistinct. The plates of infants' mastoids are especially good and show the different structures as well as in adult plates. However, we are somewhat disappointed that neither the text nor the plates give much attention to the sinuses of children.

T. E. CARMODY.



LAENNEC

(Continued from March)

The stethoscope came into use as a necessary instrument in the diagnosis of diseases of the chest even though it was not readily accepted by the majority of physicians. Its practical application was described in a book which Laennec began writing; this labor combined with his hospital work, private practice, and other duties told on his health and for a season he was compelled to leave Paris and all his professional duties behind. The book appeared in 1819 under the following title: De l'Auscultation Mediate: on Traite du Diagnostic des Maladies des Poumons et du Coeur, fonde principalement sur ce nouveau moyen d'exploration. It was first received by the medical profession with a great deal of distrust. The new method of diagnosis with a stethoscope was ridiculed by many; however, the vivid descriptions of the diseases of the chest contained in the volume made it valuable. It was not long before the new work caused a great sensation in Paris, and the advanced ideas on diseases of the chest were taken up by the younger men of the profession with splendid results. The many pupils of Laennec soon spread the practice of auscultation to nearly every country in Europe. These increased labors compelled Laennec to retire from the city, in the midst of triumph and glory, to seek rest.

He went to his country house on the bay of Douarnenez near Quimper. This home he called Kerlouaruco, which meant a place of foxes. Laennec was extremely ill, had such symptoms as dyspnea, cough, puerile respiration, anorexia, nausea, vomiting, diarrhea, pain in the abdomen, general muscular debility and low spirit. He soon gained back his strength with an abatement of symptoms. His improvement caused him to hesitate about returning to Paris, but a sense of duty overruled his better judgment and he returned on November 15, 1821. He was, at that time, only forty years old—in the very prime of life. He resumed his duties and labors with renewed zest and increased enthusiasm. He found many pupils waiting to receive instructions from him in the art of diagnosis by auscultation, so he formed a clinical class which was composed of students from all parts of Europe.

The stethoscope had to be modified before it met the requirements of the master. The first instrument was made from a roll of paper, but it was not durable, so another was made from wood in the form of a straight cylinder. It was about twelve inches long and one and one-third inches in diameter, a bore of an inch extending through it. The tube was divided transversely in the center so it could be carried in two parts. He continued to change the instrument from time to time, improving it with each change.

(To Be Continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

AMERICAN PUBLIC HEALTH ASSOCIATION MEETING

THE WESTERN division of the American Public Health Association will hold its annual convention in Denver, June 9 to 11. About 200 guests are expected. The number includes outstanding representatives in the public health field throughout the United States. Convention headquarters will be maintained at the Brown Palace Hotel.

The local committee in charge of arrangements for the convention includes: Dr. A. L. Beaghler, Director of Health Service, Denver Public Schools; Miss Jessie Lummis, Executive Secretary, Denver Tuberculosis Association; Miss Ann Dickie Boyd, Supervisor of Nurses, Denver Public Schools; Mrs. Kathryn Schulken, Superintendent, Visiting Nurse Association, Denver; Dr. S. R. McKelvey, secretary, Colorado State Board of Health; Dr. B. B. Jaffa, Deputy Health Commissioner, City and County of Denver, and Miss Helen Burke, Executive Secretary, Colorado Tuberculosis Association.

Among the prominent persons who will participate in the convention program are:

Dr. E. L. Bishop, State Health Officer, Nashville, Tenn.

Dr. Walter H. Brown, Professor of Hygiene, Stanford University.

Dr. Carl E. Buck, Field Director, American Public Health Association, New York City.

Dr. Platt W. Covington, Western Division, Rockefeller Foundation, Salt Lake City, Utah.

Dr. Michael Davis, Director of Medical Service, Julius Rosenwald Fund, Chicago.

Dr. Louis I. Dublin, President, American Public Health Association, New York City.

Dr. Kendall Emerson, Managing Director, National Tuberculosis Association, New York City.

Dr. J. A. Ferrell, President-elect, American Public Health Association, New York City.

Dr. E. T. Hanley, President, Western Branch, American Public Health Association, Seattle, Wash.

Dr. M. P. Ravenel, Editor, Journal of the American Public Health Association, University of Missouri, Columbia, Mo.

Dr. W. P. Shepard, Secretary, American Public Health Association, San Francisco, Calif.

Dr. Guy S. Millberry, Dean, University of California College of Dentistry, San Francisco, Calif.

Social trends in medicine and dentistry, the work of local health councils in relation to health departments, problems of adult health education, infant and maternal mortality, outbreaks of botulism in the Rocky Mountain states, Rocky Mountain fever—these are among the numerous health questions which will be presented during the convention.

One evening meeting will be given over to a presentation of national public health authorities. Among those who will appear on that program are:

Dr. Louis I. Dublin, President, American Public Health Association, New York City.

Dr. John A. Ferrell, President-elect, American Public Health Association, New York City.

Dr. E. L. Bishop, Chairman, Executive Committee, American Public Health Association, New York City.

Dr. Kendall Emerson, Acting Executive Secretary, American Public Health Association, New York City.

Dr. L. L. Lumsden, Medical Director, United States Public Health Service, New Orleans, La.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Medical society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

BOULDER COUNTY

The March meeting of the Boulder County Medical Society was held at the Boulderado Hotel in Boulder, Thursday, March 10. The meeting was preceded by a dinner. Motion pictures, illustrating "Traumatic Surgery of the Extremities," were supplied by the Davis and Geck Company of Brooklyn, New York, and demonstrated by Mr. E. G. Fine.

MARGARET L. JOHNSON,
Secretary.

* * *

CROWLEY COUNTY

The regular meeting of the Crowley County Medical Society was held March 8 at Ordway. Dr. G. M. Baker of Rocky Ford read a paper on "Diagnosis and Treatment of Poliomyelitis," and Dr. J. A. Hipp of Olney Springs presented a paper on "The Treatment of Heart Disease." The papers evoked a good discussion by the members.

J. A. HIPP,
Secretary.

"STATE MEDICINE"



"You have nothing wrong with your lungs; it is in your heart. Go to window No. 9."

(Dr. Philip Hillkowitz of Denver recently found the above, part of a page torn from an old copy of the Lustige Blätter, a Berlin, Germany, comic magazine, and graciously permitted Colorado Medicine to reproduce the cartoon and the translated caption.)

DELTA COUNTY

The February meeting of the Delta County Medical Society was held at Dr. W. S. Cleland's office in Delta, February 26. Officers for the ensuing year were elected. President, A. C. McClanahan; Vice President, J. T. Meyers; Secretary and Treasurer, Dr. Lee Bast. Dr. L. A. Hick was the principal speaker and read a paper on "Pyelitis."

LEE BAST,
Secretary.

* * *

LARIMER COUNTY

Dr. Casper F. Hegner of Denver was the principal speaker at the March meeting of the Larimer County Medical Society held in Berthoud, March 2. Dr. Hegner read a paper on "Appendicitis."

C. E. HONSTEIN,
Secretary.

* * *

MORGAN COUNTY

The Morgan County Medical Society held a meeting February 10. Mr. Charles H. Haines, Attorney for the State Board of Medical Examiners, was the principal speaker of the evening and his subject was "Medical Jurisprudence."

PAUL E. WOODWARD,
Secretary.

OTERO COUNTY

The regular meeting of the Otero County Medical Society was held March 10 at the Harvey House in La Junta. Two interesting papers were read, one by Dr. J. B. Farley of Pueblo on "Sodium Amytal as Anesthetic Agent" and the second by Dr. Rudolph, president of the Fort Lyon Dental and Clinical Society on "Bone Tumors."

CHAS. E. MORSE,
Secretary.

* * *

PUEBLO COUNTY

A symposium on Diabetes was given at the first March meeting of the Pueblo County Medical Society held at the Congress Hotel, March 1. Dr. F. M. Heller spoke on "Diabetes in Adults," Dr. J. F. Snedic on "Surgery in Diabetes." Dr. J. H. Woodbridge discussed "Diabetes in Childhood," and Dr. R. R. Taylor, "Diabetes in Pregnancy." The meeting was preceded by a dinner.

The second meeting of the society was held March 15. Mr. Charles H. Haines, attorney for the Board of Medical Examiners, gave an interesting talk on "The Colorado Medical Practice Act and Problems of the Board of Medical Examiners."

L. L. WARD,
Secretary.

THE COLORADO OPHTHALMOLOGICAL SOCIETY

December 19, 1931

DR. G. O. CARY, PRESIDING

Glaucoma iridectomy, intracapsular extraction, iridencleisis, eserin intolerance

Dr. W. H. Crisp presented a woman who had had glaucoma for many years, for which iridectomies had been performed. She later developed cataracts, which were operated upon. Later, an iridencleisis was done on one iris pillar to control tension. The patient had severe reactions whenever eserin was used.

Trachoma without pannus

Dr. R. W. Danielson presented a young man on whom a diagnosis of trachoma had been made by several excellent ophthalmologists and who had been treated very assiduously by them for two years with copper and silver and expression operations. The velvety appearance of the conjunctiva had remained practically unchanged. There had been no corneal pannus or ulcers, and the tarsi were still very soft.

Progressive myopia

Dr. R. W. Danielson presented an eighteen year old boy whose myopia had increased rapidly from the ages of thirteen to seventeen. By stopping school, wearing full correction for his myopia and instilling atropin and epinephrin, the boy had been able to prevent any increase of his myopia.

Bilateral, massive surface and intraocular foreign bodies of the cornea from an explosion

Dr. C. E. Earnest presented such a case in which the corneæ and the conjunctivæ were severely injured and traumatic cataracts had been produced.

Solitary tubercle in the macula

Dr. Wm. C. Finnoff presented such a case in which a focal reaction occurred after 3 mg. of O. T. had been injected intradermally.

Pigmented epithelioma

Dr. Wm. C. Finnoff presented a fifty year old lady in whom many such areas of the conjunctiva had been removed only to have the condition repeatedly occur elsewhere in the conjunctiva. Dr. Finnoff was making efforts to save the eye because the vision was still normal, while the other eye was useless due to an injury.

Stephenson's congenital pigmentation of the retina

Dr. M. B. Hook presented such a case in a twenty-five year old lady. This congenital abnormality of pigmentation consists of ovoid clumps often giving the appearance of "rabbit tracks." These areas have also been termed pigmented nevi of the retina.

Sympathetic ophthalmia

Dr. H. L. Lucic again presented the case he had previously shown. The result had been good.

Corneal dystrophy

Dr. W. A. Ohmart presented such a case. The condition is also known as neuropathic keratitis.

Traumatic cataract and a subsequent perforating injury to the same eye

Dr. R. F. Spencer presented a man whom he had cared for fifteen years ago when a cartridge exploded, injuring the right eye and producing a cataract, which was needled several times. Fourteen years later he got a piece of steel in the same eye. After removal of the steel by a magnet, he still had some vision.

Ocular changes after alcohol injections of the Gasserian ganglion

Dr. Melville Black reported that he was caring for the eyes of two such cases. Both had the expected anesthesia, but had developed corneal ulcers also. In addition, one case had developed iritis and had diplopia from involvement of the third nerve. Dr. Black said that a patch had been unsatisfactory in controlling the corneal dessication because the lid would open and the patient would not feel the patch against the cornea. Dr. Black found that a vaccination shield was more satisfactory, and in one case he had sutured the lids together.

January 16, 1932

DR. DONALD H. O'ROURKE, PRESIDING

Retinitis simulating retinitis pigmentosa

Dr. Wm. M. Bane presented a forty-six year old man whose differential diagnosis was between retinitis pigmentosa and luetic chorioretinitis. The pigmentary disturbances in the periphery gave the usual night blindness and much contracted field of vision.

Iritis accompanied by conjunctivitis

Dr. Wm. M. Bane presented a seventeen year old boy who had had the characteristic signs and symptoms of a conjunctivitis for ten days and yet who on examination was found to have an iritis as part of a uveitis. The boy was a diabetic and was under treatment with insulin. The interesting feature was whether the uveitis was diabetic in origin, or due to tuberculosis, focal infection, or some other cause.

Iridodialysis

Dr. J. M. Shields presented a boy whose eye had been struck by a BB shot from an air rifle. The iris had been torn from the ciliary body nasally and above. The shot was localized in the orbit outside the globe. Fortunately it was made of steel instead of lead so that it was removed by a magnet. The eye had recovered to 50 per cent vision.

Progressive, high myopia

Dr. J. M. Shields presented a fifty-two year old Jewish man in whom the myopia had increased from eight diopters at the age of twenty-one years to sixteen and one-half diopters at the time of presentation. The usual fundus changes of high myopia had occurred so that the best vision obtainable was 5/80 for the right eye and 2/80 for the left eye.

Traumatic, temporary, posterior capsular cataract

Dr. G. H. Stine reported regarding the man he had presented several months previously in whom a posterior capsular cataract had developed after trauma. The opacity had steadily cleared so that his vision was now normal.

Sympathetic ophthalmia

Dr. Wm. M. Bane reported the case of a twenty-seven year old man who had injured the left eye. The cornea had been badly lacerated and the iris had prolapsed. After six weeks it could be seen that there was no chance for useful vision. In view of this prognosis, enucleation was advised as a prophylactic against sympathetic ophthalmia in the right eye, although there was no evidence of such a process beginning. In spite of this procedure the right eye developed the picture of sympathetic ophthalmia within a few weeks. The man also had some infected teeth which might have been the underlying factor. Dr. Bane had recommended their removal early, but the patient had not consented.

RALPH W. DANIELSON,
Secretary.

AMERICAN COLLEGE OF PHYSICIANS: AN OPEN INVITATION

The program for the Sixteenth Annual Clinical Session of the American College of Physicians to meet in San Francisco the week of April 4, 1932, is virtually completed. Mr. E. R. Loveland, the executive secretary, with offices at 133 South 36th Street, Philadelphia, will send out copies as soon as the program has been completed and printed, which will be sometime early in February.

All physicians are invited, irrespective of membership in the College, to attend this session. The program is of such a character that it will interest everyone, whether specialist or general practitioner. The medical talent of the continent has been called upon and the response is very gratifying. When a Fellow of the College has not been the one best prepared to discuss a topic, a guest has been invited and the College has arranged for his presence in San Francisco. The primary purposes of the College are the encouragement and preservation of high standards, the dissemination of knowledge within its field and the cultivation of the historic and esthetic ground in which medicine, as one of the learned professions, grows. This session will reflect the purposes and ideals thus briefly stated and will be the first to be held beyond the Mississippi River. For this reason it should have a peculiar interest for readers of COLORADO MEDICINE, but the interest only begins here. The session will be attended by the notables in medicine from the United States and Canada, and the program, we believe, will be the strongest yet presented.

The general sessions, attended by all, are held every afternoon, Monday to Friday inclusive, and on Monday and Tuesday evenings as well. More than sixty papers and addresses will be presented revealing the trends and covering the best of the recent work in medicine. The physics and physiology of arteriosclerosis and hypertension will be discussed by the man who has made the greatest recent contribution in this field. The practical phases of the subject will be discussed by two able clinicians. Congenital narrowing of the aorta and pulmonary arteriosclerosis will be presented. The effect of funnel breast on the heart and circulation is studied. Among the subjects of live interest in diseases of the chest are: atelectasis and tuberculosis; the treatment of cavities; some observations on pulmonary emphysema; and the role of bacteria in asthma. Topics on the liver will range from the element of error in the diagnosis of jaundiced patients and a very interesting study of primary carcinoma of the liver in Chinese to the effects of the administration of glucose and insulin on the glycogen content of normal and pathological livers, and the pathology of the liver in exophthalmic goitre and the Graves' constitution.

The most modern concepts in the diagnosis of Bright's disease, nephritis and nephrosis are presented. An address on the practical applications of recent discoveries in the field of gastrointestinal physiology will summarize many years work of extraordinary value by a master in this field. The clinical aspects of gastric secretions are discussed. The newest experimental and clinical work on the adrenal gland will be presented. Also the biological and clinical importance of ovary-stimulating substances. There will be studies of calcium metabolism and diseases of the parathyroid gland. The newest knowledge on the nature of epilepsy and its treatment appear.

There are studies on the mechanism of edema formation in disease; on leukopenia; on the action of benzol, Roentgen rays and radium on the blood and blood-forming organs; on the relation of paranasal sinus infection to disease elsewhere; on the clinical significance of the atrophic tongue and on the experimental basis for vaccine treatment of chronic arthritis with a summary of the results of treatment. Diseases peculiar to the Rocky Mountain and coast countries will be emphasized in this general program.

The outstanding symposium of the session will bring to clinicians the results of the almost unbelievable advance in our knowledge of the involuntary nervous system. The anatomists, physiologists, and clinicians will collaborate in this extremely important presentation.

The preceding hasty sketch omits many important contributions, being given only to show the modern trend and wide range of the subjects. One evening only will be given to the history of medicine with delightful studies on the first aphorism of Hippocrates and on Utopia in Medicine.

While Monday morning will be devoted exclusively to registrations, the remaining mornings from Tuesday to Friday inclusive, will be given to clinics and demonstrations in institutions in and about San Francisco. Dr. William J. Kerr, Professor of Medicine in the University of California Medical School, is General Chairman. The committee includes Dr. Arthur L. Bloomfield, Professor of Medicine, Stanford University Medical School, with a group of clinicians representing the various hospitals and laboratories, together with Dr. N. W. Jones of Portland, Oregon, and Dr. F. M. Pottenger of Los Angeles. The work to be exemplified in this part of the program has never been excelled in any meeting of the College. The very wealth and extent of the material precludes mention of any specific item. The fields and borderlands of medicine will be explored. The presentations will be eminently practical. There will be opportunities to study the conditions peculiar to, or of greatest importance in, this part of our country, and in addition a number of the noted clinicians throughout the country will take part. The opportunity to study at first hand the work of the Hooper Foundation for Medical Research under the direction of Dr. Carl F. Meyer would alone make attendance at this meeting worth while, but this is only one item in a program of unusual significance.

On one or two mornings, for those interested in the history of medicine in general, or of the far west and Pacific coast in particular, interesting exhibits and talks have been prepared. The writer of this invitation has never seen more thorough and painstaking preparation for a profitable and delightful clinical session than that made by the San Francisco committee.

The session will be attended by Fellows and Associates of the College from the entire United States and Canada, but it is the desire of the College that the opportunity be given for every physician who desires to attend. The guest fee of $15.00 includes one year's subscription to the Annals of Internal Medicine, the official journal of the College, in which the papers and addresses read during the session will be published.

A cordial invitation is extended to the readers of COLORADO MEDICINE to attend this session. Provision has been made by the local committee for entertainment of friends and members of the families of Fellows, Associates and guests at the meeting.

AMERICAN COLLEGE OF PHYSICIANS TO AWARD PRIZE TO DR. O. T. AVERY

The American College of Physicians recently selected Dr. O. T. Avery of the Hospital of the Rockefeller Institute of New York City as the recipient of the John Phillips Memorial Prize for 1932.

This prize, an annual award by the College in the sum of $1,500.00, is given to perpetuate in the College the memory of Dr. John Phillips of Cleveland, a man of outstanding accomplishments as investigator, teacher, and physician, for many years a member of the Board of Regents of the American College of Physicians, who gave his life in saving others on the occasion of the Cleveland Clinic disaster on May 15, 1929.

The Committee on the John Phillips Memorial Prize, through its chairman, Dr. James H. Means of Boston, recommends the award, "To Dr. O. T. Avery for the series of studies upon the Pneumococcus in which he has played a leading role, beginning with the discovery of the type-specific soluble capsular polysacchrides and culminating in the discovery of a bacterium producing an enzyme which splits the polysacchrides of Type 3 Pneumococcus in vitro, thus rendering it susceptible to phagocytosis and thereby protecting the animals infected with it."

The Sixteenth Annual Clinical Session of the College will be held in San Francisco during the week of April 4, 1932. Dr. Avery will deliver an address, "The Role of Specific Carbohydrates in Pneumococcus Infection and Immunity," at the Convocation on Wednesday evening, April 6. At the conclusion of Dr. Avery's address, the prize will be presented to him by Dr. S. Marx White of Minneapolis, President of the College.

The distinction of this award is enhanced by the fact that although it was available the previous year, it was not possible to decide upon a suitable recipient. This is, therefore, the first award made. It is the hope of the officers and members of the College that this annual prize in memory of a distinguished colleague may, by recognizing merit, be a continuing stimulus to investigators in those subjects having a direct bearing upon the advancement of Clinical Science.

WOMAN'S AUXILIARY

Mrs. George W. Miel, member of the Denver County Medical Auxiliary and who was president of the Woman's Auxiliary to the Colorado State Medical Society for 1928-1929, has been appointed Regional Chairman of the Press and Publicity committee for the Western Region comprising Arizona, California, Colorado, Idaho, Nebraska, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming and will have charge of the exhibits from these states that will be made in New Orleans at the Auxiliary convention. We feel duly proud that one of our own state members should receive this honor in recognition of her ability.

The Publicity Chairman has received a copy of the "Chit-Chatter," clever program of the second annual banquet of the Larimer County Medical Society and Ladies' Auxiliary which was given at the Fort Collins Country Club February 3. In contrast to the serious programs of the society, the women of the auxiliary transported their guests forty years hence to 1972 for a humorous program.

The club room was gaily decorated with red balloons, and the tables on which red tapers and low baskets of carnations were arranged were set for forty including Dr. and Mrs. S. A. Joslyn and Dr. and Mrs. M. J. Stewart of Loveland, Dr. and Mrs. W. B. Hardesty of Berthoud and Dr. and Mrs. F. A. Betts of Wellington.

Mrs. W. F. Brownell, president of the auxiliary, acted as toastmistress and the toasts alluded to that future year 1972. The programs, done in futuristic spelling, were called "The Chit-Chatter" and contained jokes and medical news of forty years from now.

Dr. M. J. Stewart, who is president of the Medical Society, was introduced by Mrs. Brownell and spoke of "A Microbe-Proof Air," "A Fracture-Proof Bone" and "A Puncture-Proof Hide," created by the scientists of the time, and told the group that all their food must be taken in pill-form.

Mrs. T. C. Taylor, past president of the auxiliary, gave an account of the work of the auxiliary with a prophecy for a future of leisure from the Garden of Dreams of their past.

Dr. P. J. McHugh told of the scientific advancements of the forty years elapsing between 1932 and 1972 and told of the lessened work of the physicians due to medicines that prevented illnesses.

Mrs. Frank Carroll, with her husband, Dr. Carroll, arrived at the dinner in an airship, and told of the use of the ships among doctors, saying that the horse, the auto and the street car had completely disappeared.

During the dinner hour, the Fort Collins Concert Trio, composed of Mrs. W. S. Thompson, Miss Roine Thompson and Alfred Jagger, played. Wirt McFedries entertained the group with readings and guitar selections.

From comments heard, the affair was a success in every way and shows the spirit and ingenuity of Larimer County.

Your national chairman of Press and Publicity urges all Auxiliary women to read the delightful letter from our national President-elect, Mrs. Walter Jackson Freeman, appearing every month in the Bulletin of the American Medical Association. If your husband has not brought home the recent Bulletins, remind him of that duty.

Mrs. Freeman's letters are inspiring, informing and helpfully suggestive.

COLORADO NEWS NOTES

DENVER—Dr. Maurice H. Rees, Dean of the University of Colorado School of Medicine; Dr. F. G. Ebaugh, and Dr. Edward Delehanty attended the annual Congress on Medical Education, Medical Licensure and Hospitals held in Chicago, February 15 and 16.

DENVER—Dr. and Mrs. Edward Delehanty have returned after spending a few weeks in Miami, Florida.

LA JUNTA—Dr. O. D. Groshart has been notified of advancement from the rank of lieutenant to that of captain in the army medical reserve corps.

LAS ANIMAS—Dr. A. J. Bondurant and family have returned to Fort Lyon after four months in San Francisco.

Colorado State Medical Society
Officers, 1931-1932

President: Edward Delehanty, Denver.

President-elect: Frank B. Stephenson, Denver.

Vice Presidents: First, H. C. Goodson, Colorado Springs; Second, Lanning E. Likes, Lamar; Third, C. E. Sidwell, Longmont; Fourth, L. L. Hick, Delta.

Constitutional Secretary: Lorenz W. Frank, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 656-658 Metropolitan Bldg., Denver. Telephone KEystone 0870.

Delegates to the American Medical Association: Senior, John W. Amesse, Denver; Alternate, William C. Bane, Denver; Junior, Crum Epler, Pueblo; Alternate, J. N. Hall, Denver.

Councillors:

		Term Expires
District No. 1	Ella A. Mead, Greeley	1935
District No. 2	G. P. Lingenfelter, Denver	1934
District No. 3	George D. Andrews, Walsenburg (Chairman)	1933
District No. 4	W. W. Crook, Glenwood Springs	1936
District No. 5	C. A. Davlin, Alamosa	1932

Standing Committees, 1931-1932

Credentials: Lorenz W. Frank, Denver, Chairman; L. L. Herriman, Alamosa; George T. O'Byrne, La Junta.

Scientific Work: C. S. Bluemel, Denver, Chairman; W. A. Kickland, Fort Collins; A. J. Markley, Denver.

Arrangements: Lowell Little, Fort Collins, Chairman; W. B. Hardesty, Berthoud; William P. Gasser, Loveland; Roy F. Wiest, Estes Park; Gerald B. Webb, Colorado Springs, ex-officio.

Public Policy: H. R. McKeen, Denver, Chairman; H. S. Finney, Denver, Vice Chairman; W. W. King, Denver; B. B. Jaffa, Denver; James A. Philpott, Denver; George H. Curfman, Salida; Z. H. McClanahan, Colorado Springs; W. W. Harmer, Greeley; Carbon Gillaspie, Boulder; Edward Delehanty, Denver, ex-officio; L. W. Frank, Denver, ex-officio; Mr. Harvey T. Sethman, Denver, ex-officio.

Publication: William H. Crisp, Denver, Chairman; C. F. Kemper, Denver; C. S. Bluemel, Denver.

Medical Defense: C. F. Hegner, Denver, Chairman; W. W. Wasson, Denver; T. D. Cunningham, Denver.

Medical Education and Hospitals: Herbert A. Black, Pueblo, Chairman; Fred A. Forney, Woodmen; Philip Hillkowitz, Denver.

Library and Medical Literature: Frank W. Kenney, Denver, Chairman; E. E. Evans, Fort Morgan; James J. Waring, Denver.

Co-operation with Allied Professions: John Andrew, Longmont, Chairman; Robert L. Downing, Durango; T. E. Carmody, Denver.

Medical Economics: John M. Foster, Jr., Denver, Chairman; John B. Crouch, Colorado Springs; B. B. Blotz, Rocky Ford.

Necrology: John F. McConnell, Colorado Springs, Chairman; George A. Moleen, Denver; Robert B. Porter, Glenwood Springs.

Special Committees, 1931-1932

Medical Extension: Maurice H. Rees, Denver, Chairman; O. M. Gilbert, Boulder; C. E. Harris, Woodmen.

Industrial Commission Fees: William H. Halley, Denver, Chairman; William Senger, Pueblo; John R. Espey, Trinidad; George B. Packard, Denver; Harold T. Low, Pueblo.

Advisory Committee to the School of Medicine: Charles O. Giese, Colorado Springs, Chairman; N. A. Madler, Greeley; Fred M. Heller, Pueblo; T. Leon Howard, Denver; J. A. Hipp, Olney Springs; G. C. Cary, Grand Junction; Walter E. Hays, Sterling.

Cancer Survey: C. B. Ingraham, Denver, Chairman; Sanford Withers, Denver; Glen E. Cheley, Denver; John B. Hartwell, Colorado Springs; James D. Carey, Fort Collins; C. A. Davlin, Alamosa; John P. McDonough, Gunnison.

State Registration Fee: Gerrit Heusinkveld, Denver, Chairman; Peter J. McHugh, Fort Collins; Claude E. Cooper, Denver; O. D. Groshart, La Junta; Lee Bast, Delta.

Constituent Societies
Meeting Dates; Secretaries

Arapahoe County—Last Monday of each month; secretary, W. C. Crysler, Littleton.

Boulder County—Second Thursday; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, G. W. Larimer, Salida.

Crowley County—Second Tuesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, H. I. Barnard, Denver.

El Paso County—Second Wednesday of each month; secretary, W. A. Campbell, Jr., Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs, Colo.

Huerfano County—Third Thursday of each month; secretary, J. M. Lamme, Walsenburg, Colo.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, Walter C. Keller, Genoa.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, C. E. Honstein, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—First Tuesday of each month; secretary, H. M. Tupper, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each month; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Thursday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, R. J. Rummell, Lamar, Colo.

Pueblo County—First and Third Tuesday of each month; secretary, L. L. Ward, Pueblo.

San Juan—Second Saturday, January, April, July and October; secretary, R. L. Downing, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Weld County—First Monday of each month; secretary, Tracy D. Peppers, Greeley, Colo.

WYOMING SECTION

President, R. H. Sanders, Rock Springs — Vice President, Herbert L. Harvey, Casper
President-elect, Frederick L. Beck, Cheyenne
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to the A. M. A.: George P. Johnston, Cheyenne — Alternate, Earl Whedon, Sheridan
Councillors: C. Y. Beard, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shaffer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan — Emory L. Jewell, Shoshoni — C. W. Jeffrey, Rawlins

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

THE ROCK SPRINGS MEETING

JULY 11 and 12 have been selected as the dates for the next annual meeting of the Wyoming State Medical Society at Rock Springs. Arrangements are now being made for the program.

The Sweetwater County Medical Society will have complete charge of the hospital clinics held Monday and Tuesday mornings. Each year has produced improved clinics which are growing in interest. It is going to be a harder job each year for a county society to improve on the clinics presented at the last meeting. The surgical clinics are important to the average Wyoming physician, but the so-called day clinics are developing and each year are attended by more members.

The local society will also have charge of all entertainment and hotel reservations for the state society, its guests and the auxiliary. The rapid improvement of roads is going to assure a large attendance even if the meeting this year is in the southwestern part of the state. For years the Rock Springs, Green River, and Evanston physicians have attended the yearly meetings held in other parts of Wyoming. The membership of our society must return the compliment by a large attendance, even in these depression times, to show our friendship and to assure the Sweetwater physicians that we appreciate their efforts to put on a good show although their membership is small. The right spirit is back of their efforts. Suggestions for the program will be welcome and are requested by the secretary of the state society.

The society has full confidence in President Dr. R. H. Sanders and the members of the Sweetwater County Society. We are all looking forward to the Rock Springs meeting with pleasure.

THE TICKS ARE HERE

WITH THE passing of the snow blanket the wood ticks are appearing on the sage brush and trees.

A few years ago such a statement was not considered important. To the ignorant it still may mean nothing. But after the important discovery that wood ticks are the carriers of Rocky Mountain spotted fever and that there had been discovered and is now available a preventive serum, this announcement of the arrival of the ticks should be the signal for all persons exposed to immunize themselves as a matter of self-protection.

While it is true that every wood tick is not a poison carrier, yet many are. It is best to consider all snakes in the sage brush country as rattlers and not wait to be bitten in order to prove that it was not a rattlesnake that bit you.

The editor has for years used the government tick vaccine on himself and all employees at his sheep ranch. Each year we have given from two to three hundred persons this protective vaccine. In only one case has there been any evidence of this disease (spotted fever) developing and that was so light that the young man was only laid up for a short time. He was given one 2 c.c.

injection and refused to take the second one. In about one month while working at a sheep camp about five miles farther west he developed light symptoms of the disease. We firmly believe that had he not had the 2 c.c. he would have probably died. Our sheep herders and ranch hands tell us that after taking the vaccine the ticks do not bite nor stick on the skin like they do on those who have not received the vaccine.

If attention is given to surgical asepsis, there is very little reaction, and outside of an itching and swelling of the site of the injection most patients experience no bad effects from the vaccination.

There is a queer turn to the average mind that reasons if the article offered does not cost a lot it is not valuable. Because the U. S. Public Health Service manufactures and distributes this vaccine free, some people think it is cheap. As a matter of fact no other source is available. No one else produces it and it cannot be bought any place in the world. How much each dose costs is not stated, but the value of life so saved cannot be calculated in dollars.

Every physician in general practice in the Rocky Mountain region should learn all he can about spotted fever, its prevention and cure. It is a growing problem which is bound to spread to other regions, as ticks will be carried into parts of the United States and other countries not now infected. Secure all information you can on these subjects, provide the vaccine, and urge its use by all ranchers, sheepmen, cattlemen and all workers whose occupation carries them into the sagebrush and timber regions of the western states.

This is one of the noted medical advances of the past ten years. Your State Health Departments can and ought to supply you with the vaccine made by the United States Public Health Service. Now is the time to use it. No half-hearted effort will accomplish what we, as medical men, owe to our patients, and the doctor who is not up and coming on this subject is unworthy of the confidence of his fellow men.

Get the serum and go to work today.

WYOMING NEWS NOTES

GOSHEN COUNTY

On February 17, 1932, the Goshen County Medical men decided to form a County Society. The officers elected were: Dr. O. C. Reed, President; Dr. Leo Keenan, Secretary; Dr. J. M. Havely, Vice President, and Dr. R. K. Sell, Treasurer.

They applied for a charter, which has been granted, and we are glad to welcome the Goshen County Medical Society into the fold. In view of the fact that there are so few doctors in this county and that they formed a county society should inspire the rest of our men over the state. A county medical society will give the members a place to bring their problems to work out together and is bound to give each individual doctor something that he cannot get alone.

We approve of this move on the part of the Goshen county doctors. Arrangements for the formal presentation of the charter are being made by President Sanders. The whole society will rejoice in the development of a society in Goshen County.

SHERIDAN COUNTY

Sunday, March 6, members of the medical profession of Sheridan county were invited to the home of Dr. F. A. Dolan to celebrate the birthday of that genial gentleman. His three sisters prepared a dinner that came the nearest to being an old-fashioned Thanksgiving feed that it is possible to conceive. The wonderfully baked thirty-six pound turkey accompanied by fried chicken as a side dish and surrounded by most everything the sisters could think of made the dinner all that could be desired.

This surprise party was attended by all the Sheridan doctors except two who were unable to attend, and after the dinner was over the doctor was asked to relate the most interesting experience he had had in connection with his medical life.

There is only one other doctor in Sheridan county who was practicing in Sheridan before Doctor Dolan came here and he describes the arrival of Doctor Dolan as a young fellow who came over the Big Horn Mountains on horseback with a broad smile on his face and a growing waistline. Both of the characteristics have continued with the doctor since his arrival. His personal belongings did not arrive for two or three weeks by the slow bull teams then in use for transporting freight, and the local tailor had trouble in finding cloth enough to make him a new suit, so he had to make the vest of different material. We have a notion that Dr. Dolan was the first man to start the wearing of fancy vests in the modern tuxedo, but he has many other claims for distinction.

He related as his most interesting case, one he was called upon to attend in the very early days at Thermopolis. The doctor had just located there, an inland town many miles from the railroad, when he received a night call to one of the distant ranches. The roads were only cow trails. After driving for hours he arrived to find the patient dead. As the ranchman had no light mountain rig, he asked the doctor if he would take the body to the undertakers. Doctor said he tried to sidestep that job, but they insisted, and so he sat the dead man upon the seat with him, tied the body in, and started on his lonely

drive back to Thermopolis. At the first rough place in the road the dead man's head began bumping his, and when the moon peeked out between the clouds he thought he saw an evil gleam in the eyes of the corpse. Now in those days there was just one undertaker in town, a young fellow without a hearse, and the doctor drove up to his place with the body about four o'clock, got out and called the undertaker to come and take the body. To the horror of the doctor the undertaker refused, so there the doctor was with a dead man in his buggy and no one to take him. He couldn't dump him into the river because the people at the ranch knew he brought him to town. The undertaker wouldn't take him and so Doc had to keep him until he finally did get someone to take the body.

Other interesting experiences were told, but we all felt that Doctor's Thermopolis trip was the prize story. President Crane of the Medical Society presented the doctor with a little birthday token as a slight expression of the esteem with which he is held by his brother doctors.

FREMONT COUNTY

On the evening of March 3 at the Noble Hotel in Lander, the Fremont County Medical Society held a very enjoyable dinner meeting. Members, their wives, and guests attending the dinner totaled twenty-six. After a social hour including a round of after dinner talks in a light vein, the ladies withdrew for a game of bridge while the doctors convened in business session. The doctors present were: J. F. Replogle, presiding; E. L. Jewell, A. B. Tonkin, D. A. Moore, H. Mullarky, W. F. Smith, P. R. Holtz, R. H. Kanable, and L. H. Wilmoth.

The following officers were elected for the year: President, Dr. J. F. Replogle, Lander; vice president, Dr. E. O. Bloom, Riverton, and secretary-treasurer, Dr. L. H. Wilmoth, Lander.

The members unanimously passed a resolution opposing any further raise in the state annual license registration fee. A scientific program consisted of the following: "Fitzsimons Hospital," an interesting report of his visit there as a patient, by Dr. A. B. Tonkin; "Scarlet Fever," an historical resume and discussion of our present epidemic, by Dr. W. F. Smith; "Chest Problems," with special attention to diagnosis of incipient pulmonary tuberculosis in children, by Dr. R. H. Kanable.

DR. L. H. WILMOTH,
Secretary.

SWEETWATER COUNTY

Dr. and Mrs. Wanner recently spent two weeks in California with the parents of the former.

Dr. E. S. Lauzer spent two weeks on his ranch near Oakland with Mrs. Lauzer who is wintering there.

Dr. and Mrs. Oliver Chambers are at Oakland with their daughter, a student at Mills College. Miss Chambers is dangerously ill with an attack of appendicitis.

Dr. and Mrs. J. L. Wicks of Evanston have just returned from a trip by boat from San Francisco to New York, via the Panama Canal. Dr. Wicks reports that his car was searched after leaving New York for the west, being suspected of having abducted Charles Augustus Lindbergh Jr.

Dr. P. W. McCrame, formerly assistant to Dr. Arbogast, is opening a suite of offices in the North Side State Bank Building.

Dr. Joe Whalen of Green River, recently operated for an acute appendix, is on the job again.

Dr. R. H. Sanders.

Mother's Day

Plans for a nation-wide Mother's Day campaign to obtain better maternity care for expectant mothers are taking concrete form among women's clubs, church and civic organizations, health departments, medical societies and nursing groups, according to details which have been made public by the Maternity Center Association, 1 East 57th Street, New York City.

Last year the campaign sponsored by the association culminated in a meeting of prominent citizens which included Mrs. Herbert Hoover, Mrs. Theodore Roosevelt, Sr., Mrs. Charles A. Lindbergh and many of the most eminent physicians of the country. They voiced an indignant protest against the high maternity death rate in this country, and demanded America provide its mothers with more adequate maternity care, by means of which, authorities maintain, 10,000 of the 16,000 mothers who die annually in childbirth could be saved.

Mrs. John Sloane, president of the Maternity Center Association in a recent letter, expresses surprise that the campaign last year interested fully as many men as women, and indicated that special efforts are to be made in 1932 to awaken prospective fathers to the fact that a well baby and a healthy mother require more than simply to let nature take its course.

"The Maternity Center Association," states Mrs. Sloane, "will be glad to help local organizations everywhere to call the attention of their communities to the vital need for adequate maternity care. Mother's Day is Sunday, May 8. Material for speeches, programs for women's clubs, outlines for church services and other helps for local campaigns are available free of charge to anyone interested in improving conditions in their locality."

Among prominent persons on the Board of Directors of the Maternity Center Association are: Miss Mabel Choate, Mrs. E. Marshall Field, Mrs. John R. Drexel, Mrs. Robert L. Gerry, Mrs. Shepard Krech and Mrs. Jeremiah Milbank.

TUBERCULOSIS ABSTRACTS

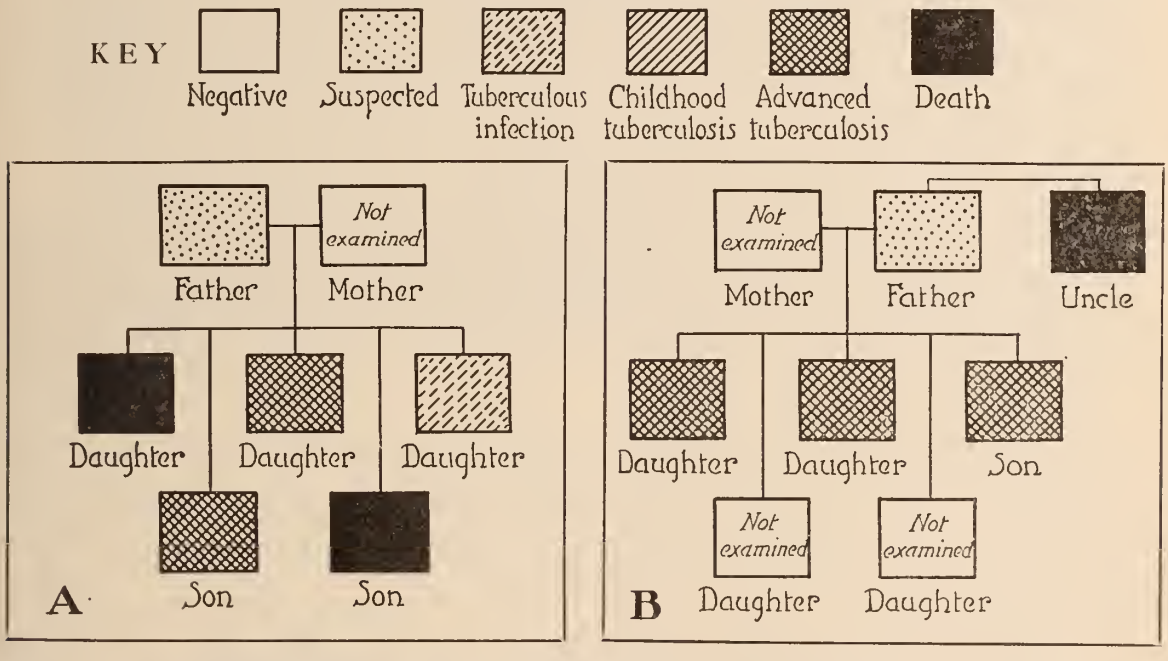
A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V April, 1932 Number 4

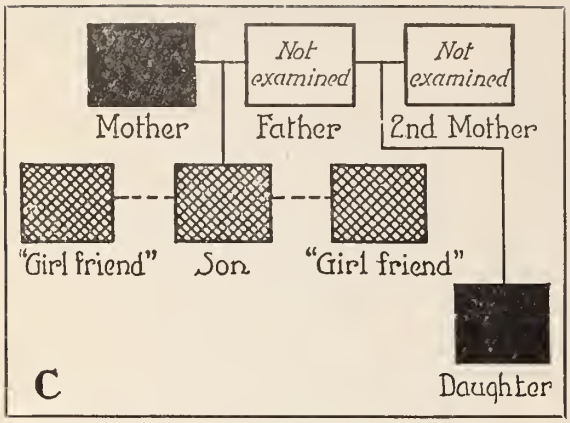
TUBERCULOSIS associations are this year emphasizing the importance of following every case of tuberculosis back to its source. "Tuberculosis causes tuberculosis —every case comes from another" is the slogan. Few physicians have been more conscientious and successful in tracing every wisp of smoke back to the embers responsible for it than J. A. Myers of Minneapolis. His special interest is the discovery of early lesions in children, but with the co-operation of a very efficient health department, he has found that tuberculosis is a group disease rather than an individual problem. The "group" is usually, but not always, a family. In a recent article, he cites and illustrates a number of typical case histories, some of which are here reproduced.

Tracing Tuberculosis To Its Source



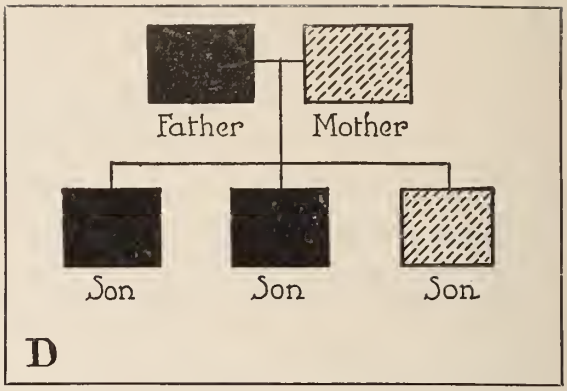
INVESTIGATION of family A began when a daughter, who later died of tuberculosis, consulted the doctor. Soon after her death, the son fell ill; his disease is now advanced. About two years later, the second daughter developed tuberculosis. Within another year, another son developed tuberculosis and died. Since both parents refused examination, the exact source is unknown, but the father is suspected of having tuberculosis. It is reasonable to assume that if disease in the father had been discovered years earlier, this disaster might have been averted.

THE source of disaster may not always be a resident of the home. In family B, a daughter of 20 years came in for examination. She had frank tuberculosis. An uncle who lived near-by had had the disease for a long time. Contact with him had been intimate and prolonged. Examination of him showed that he had huge cavities in his lung and his sputum teemed with tubercle bacilli. The father is suspected of having tuberculosis but has not submitted to an examination. An interesting fact is that all three children developed clinical disease at the age of 20.



FAMILY C illustrates how infection may be spread in a family and then carried outside the family. The mother died of tuberculosis many years ago, when the son was small. He was not well for a time after, but apparently regained his health. When he reached young adult life his father had remarried and there was a little daughter of two or three years who suddenly developed tuberculous meningitis and died. Not long after the death of the little daughter the son began to show some evidence of failing health. On examination he was found to have an extensive tuberculous process. He was sent to an institution where his symptoms subsided. When he was able to be about he associated with a young lady whose X-ray pictures had previously been entirely clear. He still had tubercle bacilli in abundance in the sputum. After approximately six months of this association the young woman began to cough. Examination showed that she had a very extensive tuberculosis of one lung. She immediately was made a bed patient. A little later this young man became associated with another young woman, and after some time, although her X-ray films had previously been clear, she also fell ill with extensive tuberculous disease.

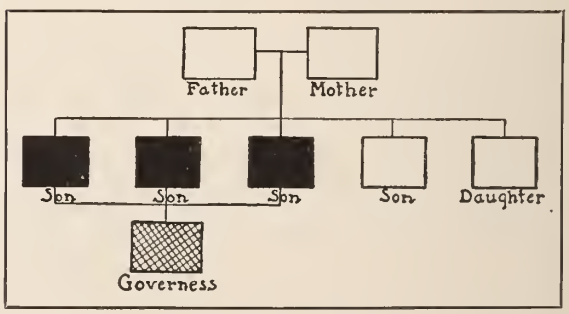
THE father of Family D has suffered for some time from what he believed to be bronchitis. When he reported for examination, he was found to have an extensive tuberculous process and many tubercle bacilli were present in the sputum. The source of his exposure was not known but his family history revealed other cases of tuberculosis. There were two sons in the family when the diagnosis was made. The younger, a small infant, soon developed tuberculous meningitis and died. The other son is apparently well, although he has a 3 plus tuberculin reaction. After this man had

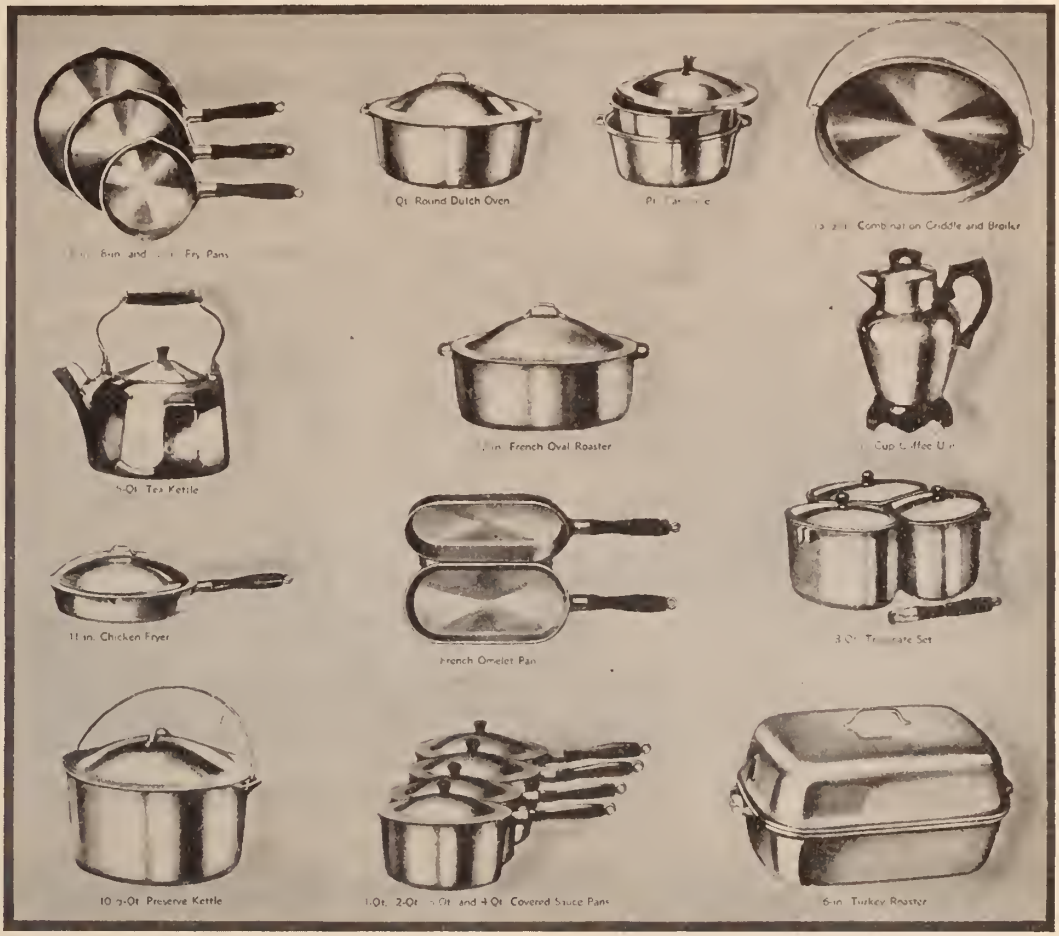


gone to a sanatorium a third son was born. The father became extremely homesick in the sanatorium and returned to the home. It was not many months later until this third infant son died of tuberculous meningitis. The father then went to a government hospital broken-hearted, for he was firmly convinced by his own observation, that he had infected the two infant sons who had died of tuberculosis. *Tuberculosis—A Family Disease. J. A. Myers—Jour. Outdoor Life, Oct. 1930.*

* * *

THAT the disease may spread in the family through the agency of a servant is illustrated by a case quoted by Myers elsewhere. In a luxurious home in Paris, father and mother in the best of health and with excellent past histories, three boys, one after the other, almost at the same age, died of tuberculous meningitis. Investigation led to the governess, more than 60 years old and a sufferer from chronic bronchitis, emphysema and asthma, which proved to be a case of torpid, senile tuberculosis. She was detached from the family. Nothing else in the home was changed. Subsequently two children were born and nursed exclusively by the mother. "One is now approaching 30 years, the other is a superb girl of 25 years."





The success of your kitchen depends on the method of cooking and the kind of cook ware used. Cook without water, bake without an oven, fry without smoke.

THERE IS AN ART CAST UTENSIL FOR EVERY PURPOSE

ART CAST PRODUCTS, Inc.

Denver's exclusive cook-ware store.

17 SO. BROADWAY, DENVER SUnset 0438

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. B. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D., Univ. of Colo School of Medicine and Hospitals, Denver

Coming Meetings:

Colorado Hospital Association Quarterly Meeting—Boulder, Colorado, June 7.
Texas Hospital Association Annual Meeting—Dallas, Texas, April 8-9.
Mid West Hospital Association Annual Meeting—St. Louis, Missouri, June 2-3.
Western Hospital Association Annual Meeting—Salt Lake City, Utah, June 9-11.
Catholic Hospital Association Annual Meeting—Villanova, Pennsylvania, June 21-24.
American Hospital Association Annual Meeting—Detroit, Michigan, September 12-16.
American College of Surgeons Annual Meeting—St. Louis, Missouri, October 17-21.
Colorado Hospital Association Annual Meeting—Colorado Springs, Colorado, November 8-9.

* * *

ONE of the biggest problems which has recently confronted the hospital administrators, and which up to the present time has not been solved, is that of nursing education. Hospitals can no longer ignore this problem; and it is imperative that the question be settled to the satisfaction of the patients, the nurses, the doctors, and the hospitals. Since the hospital is the center of the situation, the hospital group should be most active in working out the solution. The result must be one agreeable to all parties affeeted; and all these groups must, therefore, cooperate in finding a satisfactory answer.

Let us urge the hospital people to ignore no longer the situation, but to assume leadership in effecting a solution before some outside organization does it for us. There is no reason why the Colorado Hospital Association as a group cannot carry out an investigation along this line which will enable us to make some constructive recommendations on the subject.

SOME time ago in these columns a list of books was published, which are available through the Library Bureau of the American Hospital Association, but very few of the hospital administrators have taken advantage of this service. From a recent list, issued by the bureau, of individuals who had been served, it was noted that a great many people besides hospital executives have taken advantage of the service offered and have found great value in it.

Again an opportunity is taken of calling to your attention this rich field of information, in the hope that you will make use of it. If you are in doubt as to how to obtain books and other literature from this bureau, you may communicate with the Executive Secretary of the American Hospital Association. He will be glad to answer any questions regarding the subject.

THE QUARTERLY MEETING

ON THURSDAY, March 10, at the invitation of Mr. Robert B. Witham, director of the Children's Hospital in Denver, the Colorado Hospital Association held its first meeting for 1932 in Tammen Hall, the beautiful and spacious Nurses' Home which was recently completed by the Children's Hospital Association.

Despite the zero weather, thirty members of the Association from all parts of the state attended the meeting. A delicious luncheon was served at 1 o'clock in the tastefully appointed dining room on the main floor.

The business session was called to order in the auditorium promptly at 2 o'clock with President Frank J. Walter in the chair.

Mr. Walter gave an interesting report of the Chicago conference of the American Hospital Association Trustees with the presidents of the regional and state associations, which he attended as the delegate of the Colorado Hospital Association.

The question of the date of the next meeting was discussed at some length and finally referred to the program committee, which

MANY DOCTORS ARE PLEASED

with the

Economy, Excellence, and Expediency
which characterizes the orders for
STATIONERY and OFFICE FORMS
placed with

THE MILES & DRYER PRINTING COMPANY

1936-38 Lawrence St. DENVER Telephone KEystone 6348

MODERN AMBULANCE SERVICE
for MODERN NEEDS



AMERICAN AMBULANCE CO.
YORK 0070 · 1860 DOWNING ST · DENVER, COLORADO

STEADY-SAFE
REFRIGERATION



Simplified Refrigeration

With the

SERVEL HERMETIC



THE WINTER-WEISS CO.

10 So. Broadway Denver

EXPERT REFRIGERATION SERVICE

Graduate School *of* Medicine

THE TULANE UNIVERSITY OF LOUISIANA

Approved by the Council on Medical Education of the A. M. A.

Post graduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the

DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

BOTULINUS
(Food Poisoning)
ANTITOXIN

Human Rabies Vaccine 14+21 Injection Method
We Supply Municipal Hospitals

A. A. HERMANN, D.V.S.
Small Animal Veterinarian
3854 Federal Blvd., Denver. **GAl. 0500**

The Best Tonic for Your Convalescent
A PUPPY FROM HERMOSA KENNELS
5493 Federal **GAl. 0830**

"STORM"



"Type N"

The New "Type N" Storm
SUPPORTER

With long laced back and low extension upon hips; The reinforcing band attached in front at median line, also fastened in back. Hose supporters instead of thigh straps.

TAKES PLACE OF CORSETS

Gives perfect uplift and is worn with comfort and satisfaction. Many variations of the "Type N" Belt provide support in Ptosis, Hernia, Obesity, Pregnancy, Sacroiliac Strain, etc.

Each Belt Made to Order
Ask for Literature

KATHERINE L. STORM, M.D.
Originator, Owner and Maker
1701 Diamond St. Philadelphia, Pa.

will arrange a date not in conflict with other meetings scheduled in the late spring.

The treasurer's report showed the financial condition of the association to be one that many hospital superintendents would like to be able to present to their boards.

The program was then turned over to Mr. Witham, who had very kindly consented to give an account of the building of the Nurses' Home. After first stating that he planned to tell us, not "How to build a nurses' home," but "How Tammen Hall was built," he gave a brief resumè of the events leading up to the building of the home.

He explained that Tammen Hall was not built to save money for the hospital, but rather to provide the institution's nurses with a home in the true meaning of the word, insofar as possible. It was further decided that building costs were such at that time that it would be wise to take advantage of the declining markets on both raw and finished materials by not letting the contracts in full at the prices prevailing when construction began. This program was followed and the building was completed well within the original estimated cost and at a figure surprisingly low in view of the results obtained. Following an interesting account of a few of the many problems encountered and their solutions, a unanimous vote of thanks to the Children's Hospital Association for the entertainment furnished was taken, and the members went on a tour of inspection of the home with Mr. Witham, Mrs. Cushman, and Miss Morrison as guides.

Beginning at the sunporch on the roof and continuing floor by floor to the basement, the hospital superintendents and department heads, one after the other, exclaimed over the provisions made for the comfort, entertainment, and instruction of the nurses housed therein. The indirect heating and lighting, the sensible and convenient arrangement of the rooms, the large airy and completely equipped laboratories and class rooms, the library and gymnasium, and the beautiful home-like living room with its imported marble fire place in which a log fire burned cozily, all came in for their full share of attention and praise. It was the unani-

THE GOLDEN PLUNGE

OPEN ALL THE YEAR AROUND

The Clean and Sanitary Swimming Pool

For Ladies and Gentlemen

Delightfully Warm and Pleasant in Coldest Weather

Thirty Minutes from Denver on Fine Highways

Grant Churches, Manager Phone Golden 266

BARGAIN GOLF

NOT A NEW GAME— JUST **NEW PRICES** OUR INTRODUCTORY OFFER

THINK OF IT!

An 'Annual" for $7.50

Or Week Days 25c, All Day

Or Saturday, Sunday and Holidays 35c, All Day

An 18-Hole Course and NO WAITING

You have wanted a place of seclusion to RELAX from the cares of the day—

HERE IT IS

PRATT RECREATION Inc. RANCH

Out East Colfax—See Sign 7 Miles East of Fitzsimons Hospital; Turn 1 Mile South

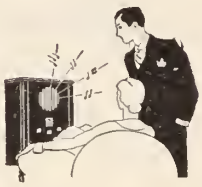
PHONE AURORA 347-R3

Horseback Riding Polo

P. S.: Let the Kiddies Ride Horseback While You Golf

Aboard the ARISTOCRAT

Luxury!



Radio Reception

In addition, the Lounge Car offers the comforts of detached chairs, inviting divans, observation platform enclosed in glass, writing desk, card tables, a library of current periodicals, late newspapers, soda fountain and a buffet serving soft drinks, sandwiches, coffee, smokers' supplies.

The Aristocrat
(NO EXTRA FARE)

Lv. Denver . . 4:00 p. m.
Ar. Omaha . . 6:30 a. m.
Ar. Chicago . . 7:45 p. m.



Burlington Route

RESERVATIONS

901 Seventeenth St. Phone Keystone 1123
S. R. Drury, General Agent
F. W. Johnson, Ass't General Agent
Denver

mous opinion that the utmost in comfort and convenience had been provided and that Mr. Witham and his co-workers were to be heartily congratulated upon their achievement.

REPORT OF THE MEETING OF THE STATE HOSPITAL ASSOCIATION PRESIDENTS, FEBRUARY 15 AND 16, 1932

CHICAGO

On Monday morning, February 15, the meeting of Presidents adjourned to the sectional meeting, "Functions of a Hospital," conducted by the Congress on Medical Education, Medical Licensure and Hospitals. Dr. Ray Lyman Wilbur, Secretary of the Interior, gave the opening address. He sounded the keynote of both groups when he spoke very emphatically against the proposed plan of building more government hospitals for the purpose of hospitalizing veterans of the military services for ailments not attributable to the hazards of service. He did not disapprove of these veterans being treated, but he did condemn the program of having them treated in hospitals which the government proposes to erect. This is along the line of this year's program of the American Hospital Association. Dr. Wilbur pointed out that unless we have another war these hospitals would in a short period become vacant, and would prove too much of a temptation for the politicians of the states and nation to utilize this vacant space for further state medicine. This would be, he said, the most dangerous entering wedge for the promotion of state medicine. He pointed out that Congress as a whole is unqualified to act as a Board of Directors for the hospitals. He spoke also of the fact that the veterans to be hospitalized are of practically one age, and that the treatment rendered, therefore, in the government hospitals would be very narrow in scope, since the diseases and ailments to be treated would be those common to a certain age group.

Other speakers on the program stressed the fact that there are at present enough civilian hospitals to care for the veterans,

SPENCER SURGICAL GARMENTS BELTS for WOMEN or MEN With or Without Ptosis Hernia or Kidney } PADS or Sacro Iliac Support

SPENCER CORSETS of DENVER
218 Empire Bldg. TAbor 6289

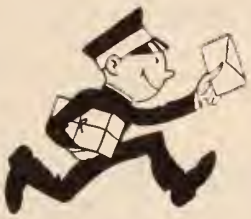
Conway's FLORAL SHOP
1064 SO. GAYLORD
PEarl 0622

Mother's Day, May 8

Show mother that you remember and care by sending her a carefully selected plant or arrangement of flowers.

We Deliver

LET
The WESTERN MESSENGER SERVICE
Run Your Errands



At your service, when you're in a hurry

Phone TAbor 5345

424 18th St.
Denver Colorado

E. L. GRIFFEY

Successor to
Robt. Gibson, Griffey and Company
Wholesale Woolen Merchants

Denver's Only Popular Priced High Class TAILOR

We Make Clothes from $30.00 to $65.00

Our $50.00 Business Suit Is a Wonder

The suits and overcoats that sell for $65.00 cannot be surpassed anywhere in Quality, Workmanship and Price.

See for yourself the excellent values we have to offer you.

We Are Conveniently Located
1509 TREMONT

PENCOL
DRUG STORE

Denver's Leading Druggists

504 E. COLFAX YOrk 8300

BIOLOGICS—OXYGEN
PRESCRIPTIONS

At Night Call FRanklin 0041-W

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of
ORTHOPEDIC
APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.
Phone KEystone 2702
Denver, Colo.

and that these hospital facilities should be utilized more for that purpose.

In the afternoon a meeting of the State Association Presidents was held in the offices of the American Hospital Association, at Eighteen East Division Street. The meeting was held there for the purpose of acquainting the group with the facilities which the American Hospital Association has to offer to its members. A question put to the thirty-seven presidents in attendance revealed that only six had previously been in the national headquarters.

The presidents' meeting was held in conjunction with the meeting of the American Hospital Association trustees. After introducing each of the delegates, the meeting was thrown open by the trustees to the delegates for suggestions. The Ohio representative had prepared a list of suggestions for the trustees to consider. (It might be well to note here that the Ohio State Association was the first hospital association to be recognized by the American Hospital Association; and from its membership have come many leaders of our national association.) The suggestions presented by the Ohio group were as follows:

(1) The appointment of a full time consultant who would assist individual hospitals, particularly hospitals under one hundred beds, in their various problems. It is recognized that most of this would have to be carried on by correspondence and provision should be made for some field work.

(2) Surveys of the various states when future hospital construction is contemplated, in order to prevent as far as possible the over-development of hospital facilities in given localities.

(3) The establishment of research laboratories which would set up as standards proved hospital procedures and conduct various tests to establish the comparative value of merchandise used by the hospital field.

(4) Make available to members the findings of various national associations such as the National Laundry Association, and also extend the use of the information available in the library of the American Hospital Association.

NURSES
OFFICIAL REGISTRY

Established to Meet the Community's Every Need in Nursing

Hourly Nursing Service.
Under-Graduate and Practical Nurses Provided.
Positions Filled.

Information on all nursing service.

This registry is endorsed by the Colorado State Graduate Nurses' Association and the American Nurses' Association.

KEystone 0168

ARGONAUT HOTEL

THE RESTLESS BED-RIDDEN PATIENT

Can be calmed and interested with an aquarium of

LIVE BEARING TOY TROPICAL FISH

Rare and Interesting

Unusual and beautiful with the lure of color tones, the many forms of Tropical fishes hold never-ending fascination for the beholder. Not only in form and color, but even in habits of life are they an interesting study. These little creatures, having been acclimated to aquarium life and their usually minute size, make it easy to keep a collection within a small space.

LARGEST STOCK OF TROPICAL FISH IN THE WEST

Write for Price List

AQUARIUMS AQUARIUM SUPPLIES

AQUATIC VEGETATION

Large collection of Aquatic plants, enough to balance a 10-gallon aquarium, sent postpaid $1.75

CHAS. T. GORE

4524 DECATUR ST. GAllup 0410 DENVER, COLO.

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

Office Phone M. 321 Res. Phone M. 4422-R

GEO. LOXAM

Surgical and Invalid Supplies

20 Independence Bldg.
COLORADO SPRINGS, COLO.

Physicians and Surgeons' office supplies, Surgical Braces and Supports, Operating Tables, Surgical Dressings, Enamelware, Rubber Goods, Laboratory Supplies.
Instruments Repaired

Trade discounts to Physicians, Surgeons

Rose Ballinger, Mgr.

U. S. MULTIGRAPHERS

Multigraphing
Mimeographing *Addressing*
Folding *Mailing*
Typing

711 Security Bldg. Telephone TA. 3003

CUSTOM MADE

NU-BONE

SUPPORTING OR FOUNDATION GARMENTS

For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.

RUBY A. BETTS

22 Lincoln SPruce 7998

(5) Study the cost of training of student nurses; determine the value of student nursing service to hospitals; also determine whether or not the smaller hospitals can economically maintain nurses' training schools.

(6) Establish a permanent legislation committee with a view towards the standardization of legislation affecting hospitals in the various states.

(7) Set up a standard annual report for hospitals and require this report from all institutional members. This report should be set up so as to serve the needs of the American Medical Association, the American College of Surgeons and various governmental bodies, making it unnecessary for hospitals to make up special reports for various organizations throughout the year. This would make available at the headquarters of the American Hospital Association all general information regarding member hospitals and enable the hospital to refer many agencies, from whom they are now receiving questionnaires, to the National Association.

(8) A plan of newspaper and magazine publicity should be set up to better acquaint the public of the aims, objects, and purposes of the hospital field and to offset the unfavorable publicity that hospitals have been receiving recently in newspapers and magazines.

(9) The publication of a magazine devoted to the entire hospital field. The bulletin is an excellent journal, but it does not adequately represent all hospital activities. The American Hospital Association should have an organ which thoroughly represents hospital workers and hospitals, similar to the Journal of the American Medical Association and other general publications by national organizations. It is difficult to believe that the American Hospital Association will ever be able to speak effectively and authoritatively to the hospital world without a general hospital journal which is owned and controlled entirely by the association.

(10) Establish a more thorough plan of securing membership in both the national and geographical sections of the American



"A Shady Business Conducted on Sunny Principles"

AWNINGS of Character

BEAUTIFUL—SUAVE—BECKONING

Correctly tailored and installed by exclusive awning makers from your choice of the world's finest fabrics at sensible prices.

American Tent & Awning Co., Inc.

1388 So. Broadway PEarl 8224

J. B. Martina Mosaic Company

TERRAZZO—MARBLE MOSAIC

The floors and sanitary cove base highly recommended for hospitals and institutions

3412 W. Hayward Place GAllup 4697 KEystone 1037 Denver, Colo.

DENVER SANITARIUM

—FOR SALE—

Partly Equipped, Beautiful Grounds, Inspiring Mountain View

Accommodates About 50 Patients

GREAT BARGAIN

1618 BROADWAY **Frank F. King** REALTOR MAin 2333



A tempting, nourishing drink for convalescents

TO provide the *extra nourishment* so essential during convalescence—Cocomalt is suggested, at meals and between meals—daily.

Cocomalt is a delicious chocolate flavor food drink—easily digested, readily assimilated, and palatable even to the very sick. It provides substantial nourishment at little cost; and is especially useful post-operatively and during convalescence.

A scientific combination of milk proteins, milk minerals, converted cocoa, eggs, barley malt and sugar—Cocomalt comes in powder form ready to mix with milk, hot or cold. It adds 45% more protein, 48% more mineral salts and 184% more carbohydrate—increasing the caloric value of a cup or glass of milk more than 70%.

Not only during convalescence, but whenever a high-caloric diet is indicated, Cocomalt will be found useful. It is recommended for expectant and nursing mothers, for run-down men and women, for undernourished children. It contains Vitamin D in sufficient quantity to make a definite contribution to the antirachitic potency of the child's diet.

Comes in ½-lb. and 1-lb. sizes, at grocers and drug stores. Available also in 5-lb. can for hospital use at a special price.

Free to Physicians

We would like to send you a trial can of Cocomalt. Just mail the coupon and we'll be glad to send it to you without charge.

Cocomalt

DELICIOUS HOT OR COLD



ADDS 70% MORE NOURISHMENT TO MILK

R. B. DAVIS CO., Dept. 43D Hoboken, N. J.
Please send me, without charge, a trial can of Cocomalt.

Name.....

Address.....

City..... *State*.....

Hospital Association. Members should not be accepted by the national association from areas where there are geographical sections except through the geographical section.

Representatives from some of the other states suggested that in the future papers to be given at the conventions should be censored beforehand, so that many of the valueless ones could be eliminated.

At this meeting the committee reported 28,333 beds available in 1,769 civilian hospitals for the care of soldiers. Copies of the report were distributed to those present. (It might be interesting to know that the state of Colorado offered 473 beds for general hospital care, 814 for the care of tuberculous patients, and 110 for psychopathic cases.) This report was published in very comprehensive form, ready for presentation to Congress. This is a very good move on the part of the hospital group in bringing out the point stressed by Dr. Wilbur at the first session of the meeting.

The meeting then took the form of a general discussion on the subject of membership. The delegates representing the various hospital associations were unaware of the qualifications necessary for a state association to be recognized by the American Hospital Association and it was found that many state associations were organized and functioning, which had never received the necessary approval of the American Hospital Association. There was, therefore, no reciprocity between those state associations and the national association in the matter of memberships. The discussion in regard to memberships was lengthy, and a great deal of feeling was expressed by delegates, especially those from Ohio. A committee was appointed to investigate the requirements for membership; no doubt a revision of membership qualifications and a better understanding on the part of the state associations as to their status will be the result. There is no doubt that states not possessing sectional organizations will be organized into such, and that membership in both state and national organizations will be required for individual membership.

On Tuesday morning, February 16, the

(Continued on Page Twenty-Eight)

W.T. ROCHE
Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 YOrk 0901

18th at Gilpin

Phones KEystone 5287
KEystone 5288

Established 1874

The J. DURBIN SURGICAL SUPPLY CO.

1632 WELTON STREET DENVER, COLO.

QUALITY

Surgical Instruments, White Enamel Furniture, Hospital and Sick Room Supplies, Rubber Goods, Hearing Appliances.

Manufacturers and Fitters of Trusses, Elastic Hosiery, Abdominal Belts, Arch Supporters

We Rent Invalid Chairs, Beds and Infra Red Lamps

Announcing

Surgeons' Operating Garments Nurses' Uniforms

THE TUXALL CORP.

exclusive

New Styles in Professional Garments Hospital Work Uniforms

Denver made goods for Rocky Mountain Patrons

3704 Downing St. TAbor 9093 Denver, Colo.

SUNLIGHT FOR THE LARYNGEAL TUBERCULOSIS PATIENT

The curative and pain-alleviating power of Sunlight is highly recognized in the treatment of Laryngeal Tuberculosis. Sunlight is now projected directly upon laryngeal tissues with a SOLAR-THERAPEUTIC-LARYNGOSCOPE; a device for condensing and projecting light on diseased portions of the throat and larynx. The operation of this device is simple and enables the patient to see his own larynx and to direct the light on the lesion. Sunlight is a natural antiseptic and healing agent, it helps to maintain the function of the cell and to increase metabolism of the tissues. The cost of the apparatus is reasonable and within the reach of every patient. Write for descriptive literature to:

VERBA LARYNGOSCOPE COMPANY

COLORADO SPRINGS, COLORADO



Montclair Sanitarium

A HOSPICE FOR THE ELDERLY

BEAUTIFULLY located near Colorado Woman's College. On the outskirts of Denver. Automobile highways and street cars near by, yet not obtrusive.

American home atmosphere. Devoid of objectionable institutional features.

We invite inquiries as to rates, facilities, etc., from qualified ethical physicians.

Corra Larson Reed, R. N., Superintendent

1690 QUINCE ST. DENVER, COLO.





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.



NATIONAL METHODIST EPISCOPAL SANATORIUM

THE NEW NATIONAL METHODIST EPISCOPAL SANATORIUM, for the exclusive treatment of Tuberculosis, has already been recognized as one of the finest Tubercular Sanatoriums in America. Colorado's invigorating air and sunshine, flooding every room through specially designed windows, diet and careful nursing, are important factors in the treatment of our patients.

For Rates and Reservations Write or Wire

GUY M. HANNER, SUPERINTENDENT COLORADO SPRINGS



WOODCROFT HOSPITAL—PUEBLO, COLORADO

Woodcroft Hospital was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent

H. A. LaMOURE, M.D., Medical Director F. M. HELLER, M.D., Neurologist and Internist

P. A. DRAPER, M.D., Resident Physician

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



A Corner of the Sixty-Five- Bed Heliotherapy Solarium

THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course



THE PRESBYTERIAN HOSPITAL

Modern fireproof building—Telephone, hot and cold artesian water, lavatory in every room—Light, airy rooms—Reasonable rates—Every facility for scientific diagnosis and therapy—Fully equipped pathological and x-ray laboratories and dietetic department.

East Nineteenth Avenue and Gilpin Street Denver, Colorado

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING

Jas. H. McKnight M.D. Portia M. Lubchence M.D.

McKnight Hospital

Haxtun, Colo.

"Say it with flowers"

Park Floral Co.

Phones M. 1713-1714 1643 Broadway

Harold Crawford Hill
Medical Director

Holyoke Hospital

Holyoke, Colo.

24-HOUR SERVICE

AMBULANCE *and* PULMOTOR SERVICE

DAY AND NIGHT PHONE

Main 830

John E. Wylie, Mgr.

112 Exchange Place, Colo. Springs, Colo.

Packard Invalid Sedan
Regular Equipped Ambulance

Under New Management

PHYSICIANS AND SURGEONS HOSPITAL

Medical
Surgical
Obstetrical

2939 E. COLFAX YOrk 1424

Bessie A. Keener, Supt.

TELEPHONE KEYSTONE 8428

QUALITY

F. W. Berbert BERBERT *Julius Berbert*

FIRST

The latest patterns of surgical instruments always in stock.

The most modern manufacturing plant in connection, for special work and repairs of all instruments.

ORTHOPAEDIC APPLIANCES

Elastic Stockings Trusses
Abdominal Supporters

GEO. BERBERT & SONS

228 16th St., Opposite Metropolitan Bldg.



Samples and literature on request.

A FOOD WHICH CORRECTS INTESTINAL PUTREFACTION

LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)

Provides the right soil for the growth of a normal intestinal flora — Nature's method of combating putrefaction.

THE BATTLE CREEK FOOD CO.
Battle Creek, Michigan

L. D. DUTCHER Phone 2995-R
WALTER J. SIDERMANN Phone 2669-W

DUTCHER
Ambulance Service

BALLOON EQUIPMENT
INVALID SEDANS

315 West 4th Street Phone 390
PUEBLO

Are You Listenin'?



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado Ext.

REPORT OF THE CHICAGO MEETING

(Continued from Page Twenty)

presidents' meeting again adjourned to join in the meeting of the American Medical Association. The conferenee was on "Hospital Service," and the general subject under diseussion was the "Care of the Veteran." The following persons spoke on the subjeet from various standpoints:

Dr. H. H. Shoulders, Seeretary, Tennessee State Medieal Association: "From the Standpoint of Medicine."

Mr. Paul H. Fesler, President, American Hospital Association: "From the Standpoint of the Ameriean Hospital Assoeiation."

Mr. Edward A. Hayes, Member, National Rehabilitation Committee, the Ameriean Legion: "From the Standpoint of the Ameriean Legion."

Dr. Hugh Seott, Manager, Veterans Administration Hospital, Hines, Illinois; "From the Standpoint of The Veterans Administration."

It was stressed in this meeting that, if the loeal hospitals are good enough to care for the veterans' wives, children, and other members of the families, they can surely give adequate treatment to the veterans themselves. It was pointed out, also, that there would be great danger to the veterans in acute eases to delay treatment in order to transport them to hospitals some distance from home. It was further pointed out that there would be mueh waste in transporting veterans a great distanee for cases of short duration; and that the distanee would prevent many men from being hospitalized, who would be foreed to appeal to public eharity for sueh faeilities.

This session adjourned to meet with the state presidents, and all the speakers of the morning meeting were again present, entering into the discussion regarding the care of the veterans.

What will be the outeome of the conference on "The Care of the Veterans" remains in doubt. Although the American Hospital Assoeiation, the Ameriean Medical Association, and the American Legion are all cooperating, the Veterans' Bureau has adopted an attitude of silence.

"TESTED FOR TOXIC REACTION"

SUCCESS DEPENDS UPON your achieving the DESIRED RESULTS. Let the LANE INTRAVENOUS and SUBCUTANEOUS PRODUCTS help you to ATTAIN THIS END.

LANE LABORATORIES, Inc.

WRITE FOR PRICE LIST COLORADO SPRINGS, COLO.

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources We Insure Only Ethical Practitioners

David Jacobs, Manager *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.

BALTIMORE, MARYLAND

(a) Ordinary milks form a hard curd often regurgitated or eliminated.



(b) Soft-curd milk, being very tender, is easily digested and assimilated.

STOMACH CURDS

SOFT-CURD MILK

IS GENUINE "SPECIAL BABY MILK"

And will help solve some of the problems confronting you in establishing the diet of DELICATE INFANTS

Natural whole soft-curd (Holstein) perfectly Pasteurized milk from healthy isolated cows individually tested for their ability to give milk which forms a very soft easily digested curd produced in accordance with methods developed and instructions given by Dr. R. L. Hill, human nutritionist, U. S. Department of Agriculture. Endorsed by the Medical profession and dieticians for feeding infants, invalids, convalescents and cases of weakened digestion where milk is prescribed.

Upon request, descriptive literature and a generous sample of our soft-curd milk will promptly be sent to any member of The Colorado State Medical Society.

THE LEAGUE DAIRY

933 BANNOCK ST. KEystone 3297



LET'S TALK OVER THE BIFOCAL SITUATION . . .

AND let's get right down to brass tacks about it—Bifocals come and go—but what is the one outstanding feature of any bifocal that enjoys lasting popularity? Invisibility, of course. Invisibility is what appeals to modern American men and women—but you and they want maximum optical performance too.

NOW here's a bifocal—"The Orthogon D"—that gives super performance and for added good measure is incomparably invisible. Its segment is made from Bausch & Lomb Nokrome glass—consequently it is absolutely free from color aberration. It is ground according to the patented Orthogon Series of Curves—astigmatically corrected to the minimum amount of marginal astigmatism. And what's more—"Orthogon D" is available at the lowest price ever asked for a bifocal containing all these features.

TRULY it is the answer to your bifocal problem. It's available in Soft-Lite too! Send for the booklet —"Orthogon D" The Modern Bifocal.

RIGGS OPTICAL COMPANY

There is a branch conveniently near you to serve you with quality optical products.

DELIVERANCE

Within a hemorrhoidal vein—
A wasp by day, by night a pain
That stings and stabs and burns—
A pile down at my rectum's end
Abides and never fails to rend
My soul with anguish when I bend
Or stoop or sit. It yearns
To leave its unattractive haunt
And tortures me because it can't.

Its name is unrefined and base;
Its habitat, a graceless place
Unhonored and unsung,
Is also of ignoble name—
Is held to be a place of shame;
And though its nerves are sheathed in flame
No word of lip or tongue
May be permitted to express
Its ignominous distress.

On other pains is no taboo;
The carbuncle that tortures you
Is not in shame concealed;
The aching head, the mangled toe,
The crippled heart, the grief and woe
That adenoids and tonsils sow
May be in words revealed;
But I'm denied that solace sweet
Because my pain is in my seat.

Some day decorum's ban will fail
To keep concealed my tortured tail,
And then, upended, I'll
To some grim surgeon's sight expose
The lowly region of my woes;
And when a ligature he throws
Around that scissored pile
Between my groans of pain I'll shout
With joy because the damn thing's out.

—A. C. McClanahan, M.D.

Delta, Colo.

IMMATERIA MEDICA

"You remember when you cured my rheumatism a couple of year ago, Doc?" asked the patient, "and you told me that I should avoid dampness?"

"Yes, that's right," replied the doctor approvingly.

"Well, I've come to ask you if I can take a bath."

* * *

During the recent American Legion convention, a woman who became annoyed at some of the antics of the celebrating former service men on the street, rushed up to a policeman and said, "Officer, why don't you stop them?"

"Lady," was the reply, "there's an old man in Holland who tried to stop them—and look what a fix he's in."

* * *

Week-end guest—"I've made up my mind not to retire until I am seventy."

Sleepy Host (whose hints have been ignored) —"In that case, old chap, I hope you won't mind if I turn in now."

* * *

Owen: "When can I expect payment on that debt you owe me?"

Moore: "Always."

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel — Clyde H. Smith

DANIEL-SMITH CO.
PHOTO-ENGRAVERS AND MAP MAKERS
KEYSTONE 5634 — 830-10th ST.
DENVER, COLO.

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.

10 YEARS



Our first announcement of S. M. A.

of PREVENTIVE INFANT FEEDING

In November, 1921, the S.M.A. Corporation announced an epochal development in The Journal of the American Medical Association.

This development was called S.M.A. and resembled breast milk so closely that about 95% of infants deprived of breast milk would do well on it. It was a departure particularly in its preparation of the fats, and it also was a departure because it included enough cod liver oil to be antirachitic.

In offering S.M.A. to the medical profession, S.M.A. Corporation was the first company to recognize the importance of the antirachitic factor by including it in the fat, giving automatic protection. S.M.A. is *still* the *only antirachitic breast milk adaptation.*

The excellent results produced by intelligent feeding of S.M.A. created such a demand that its use is general all over the United States and in many foreign countries.

More than 3 hundred million feedings of S.M.A. have been prescribed by physicians.

A TRIAL SUPPLY of S.M.A. with complete feeding suggestions will be sent to physicians upon request. Infant Record Sheets and weight charts will be included if you say so.

What Is S.M.A.?

S.M.A. is a food for infants—derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar, potassium chloride and salts; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

S.M.A. Corporation
4614 Prospect Ave.
Cleveland, Ohio

437-9 Phelan Bldg., San Francisco, Calif.
64 Gerrard St., East, Toronto, Ont., Can.

ACCEPTED AMERICAN MEDICAL ASSN.



COPYRIGHT 1932, S.M.A. CORPORATION

(Attach this line to your prescription blank or letterhead). 23-42

When impartial and dependable advice is required in connection with any insurance policy or problem,

See

Max S. Schayer
Insurance Counselor

535 EMPIRE BLDG

TAbor 5563 KEystone 6414

Nature Made It!



ORIGINAL
MANITOU
Sparkling
Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

Mental Specialist: "And that habit of talking to yourself—there's nothing to worry about in that."

Patient: "Perhaps not; but I'm such a damn bore."

* * *

Fond Mother to Young Son: "My boy, you must not shoot craps, for life is just as precious to the little craps as it is to us."

* * *

Little girl (to playmate): "So long, Elsie, mama's giving a party and I gotta go home and make precocious remarks."

* * *

Doctor: "My dear sir, it's a good thing you came to see me when you did."

Patient: "Why, doctor? Are you broke?"

* * *

"I'm a man of unrestrained energy, Doctor, a human dynamo."

"Was your father that way, too?"

"No, he never touched a drop."

* * *

She: "There's a mistake of fifty cents in our butcher's bill today."

He: "Phone him and bawl him out about it."

She: "It is in our favor."

He: "Better say nothing about it. We might get some poor clerk in trouble."

* * *

Smith: "Have you ever been in a railway accident?"

John: "Yes, once when I was in a train and we were going through a tunnel I kissed the father instead of the daughter."

* * *

I am a nickel.

I am not on speaking terms with the candy man.

I am too small to get in the movies.

I am not large enough to buy a necktie.

I am of small consideration in the purchase of gasoline.

I am not fit to be a tip. But—believe me, when I go to church I am Some Money.

* * *

Barber: "You need a shampoo badly, Doctor. May I?"

M.D.: "I know it; and you've had a sour appendix for years, too, but I don't nag you about it."

* * *

The obtuse Britisher was in the United States for the first time, and ventured to drive a friend's car. On the highway he came to a sign: "Curve. Drive Slow. This Means YOU!"

The Englishman stopped in surprise and exclaimed: "Now, reahly 'ow did they know Hi was 'ere?"

* * *

A dignified surgeon who had lost faith once said: "I have operated upon hundreds of human bodies and have never seen a soul." Whereupon a humble believer propounded this question to the surgeon: "Have you ever seen a pain."

* * *

"I'd still have all my lower teeth if it wasn't for a crazy dentist."

"Why did you go to see him?"

"I didn't go to see him. He caught me in his home making love to his wife."

* * *

Patient: "Doctor, I want you to give me some advice, if you can. I've got the girl habit."

Doctor: "You mean you're a woman chaser?"

Patient: "No, I mean I'm the father of six girls and I want a boy.

Eighteen Years' Success with HAY FEVER

THIS is the enviable record of Pollen Antigens Lederle introduced by the Lederle Antitoxin Laboratories in 1914.

Pollen Antigens
Lederle

have added evidence each year to their value in the prevention or relief from symptoms of Hay Fever.

Each year an increasing number of physicians have familiarized themselves with the Hay Fever problem and are relieving patients of their seasonal attacks.

Pollen Antigens Lederle are glycerolated extracts. They are uniformly stable so that the original strength of the antigen is maintained for a long period.

The Lederle Laboratories maintain a Department of Allergy supervised by experts and welcome correspondence on all questions pertaining to hay fever in any locality.

Distributed by
HEALY & OWENS
1400 Larimer Denver, Colorado
LEDERLE LABORATORIES INC.
New York

PRESCRIBE
KNOX
SPARKLING GELATINE
IN **DIETS** FOR **DIABETES**
LIQUID *and* **SOFT FEEDING**
REDUCING and ANEMIA

KNOX is pure, granulated plain gelatine with 85-86% protein content. Free from flavoring, coloring or sweetening—therefore combines safely and perfectly with fruits, vegetables and other foods for all diets.

KNOX *is the real Gelatine*

Data and Recipe Books on Request
KNOX GELATINE LABORATORIES, 41 Knox Ave., Johnstown, N.Y.

MIRACLE
A Perfect Cleansing Compound

RECOMMENDED AS THE IDEAL CLEANSER FOR HOSPITALS, SANITARIUMS AND INSTITUTIONS. IT DISINFECTS AS IT CLEANS. POWERFUL, YET NON-INJURIOUS. FOR WALLS, FLOORS, METALS, FABRICS, DISHES, LABORATORIES AND EVERY POSSIBLE CLEANSING PURPOSE WHERE GREASE, DIRT OR GERMS ABOUND.

Liberal Trial Sample Packages Will Be Sent Gratis to Any Institution or Doctor Upon Request.

MIRACLE PRODUCTS AND MFG. CO.
1255 SOUTH PEARL ST.
PHONE SOuth 4082 DENVER, COLO.



The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

WINDSOR-MEADOW GOLD

MAin 5131

Actor: "Don't you like my deathbed scene?"
Director: "No, I want you to put more life into it."

* * *

"How did it happen? Just a second, I'm trying to collect my thoughts."
"Say, a time like this is no place to start collecting rare things."

* * *

"There's nothing so annoying as a slight cold."
"Yes, especially when it's so slight the doctor won't give me a whisky prescription on it."

FOR SALE
X-RAY LABORATORY AND EQUIPMENT

Complete diagnostic, fluoroscopic, and superficial therapy equipment, all comparatively new. Produced $9,000 net income last year. Colorado roentgenologist retiring from private practice and must sell within next 60 days. All apparatus is of late Keleket design. Communicate with R. E. Venuti, 921 Milwaukee St., Denver. Phone FRanklin 3267-J.

Male Nurse, companion. Private or institutional, also experienced with mental cases. Reliable and trustworthy. Can furnish excellent references. Billetter, 924 Bannock St., Denver, Colorado.

PHYSICIANS' EXCHANGE

Salaried appointments for Class A physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoes National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member the Chicago Association of Commerce.

COLORADO COLLEGE
of PODIATRY

1554 California St., Denver

Bertha DeWolfe, D.S.C., Dean

Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

The DOCTOR'S CAR
Is Given Special Attention

SHIRLEY GARAGE, Inc.

1637 Lincoln St., Denver TAbor 5111

DAY STORAGE $5 PER MONTH
Close to All Medical Buildings

Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing



Your Acceptance of *Our* Products

In every field and on every subject there is an outstanding authority. In the field of health, medicine and nutrition, you, the doctors, are the recognized authorities.

Now, through the American Medical Association, you have further safeguarded the health of the public by the establishment of the Committee on Foods. This committee passes upon each food submitted—its manufacture, its ingredients, its food value and the claims of its advertising. To the foods which pass all these tests is granted the seal of the Committee on Foods of the American Medical Association—Your Seal of Acceptance.

FOUR LOAVES OF ZIM'S BETTER BREADS have been awarded this high honor. Your seal proves that our breads have met and passed exacting tests of quality and food value—that our products are nutritious and our bakery sanitary—and that our advertising claims are based on facts.

Feel free to prescribe Zim's products. Write or call us for information, or for samples of these four loaves.

ZIM'S All-O-the-Wheat Bread
ZIM'S TWINS Double Loaf
ZIM'S Twist Loaf
ZIM'S Kew-Bee Bread



Baked by

THE ZIM BREAD COMPANY

COLORADO SPRINGS, COLO.

COLVIN BROTHERS

MEDICAL BOOKS

Ph. MA. 3866. 221 Republic Bldg., Denver

NEW BOOKS:
Marriott—Infant Feeding
Ballenger—Ear Nose and Throat
Buckstein—Peptic Ulcer X-Ray
Crossen—Diseases of Women
Sante—Chest X-Ray

DENSIN TOOTH POWDER

A Natural Dentrifice

Serves Three Purposes:
MOUTH WASH
GUM HARDENER
TOOTH CLEANSER

A powder that should please the most discriminating.

For sale by all druggists—thirty-five cents

SNYDER LABORATORIES
228 E. & C. Bldg. Denver, Colo.

The Cocks-Clark Engraving Co.
Illustrators — Designers
Photo Retouchers and Engravers
Tabor 6244
2200 ARAPAHOE ST.
DENVER

Fine Upholstered Furniture Made to order

Furniture repairing of all Kinds

Henry Meyer
Upholsterer and Furniture Manufacturer
DENVER
538 East 17th Ave., at Pearl St.
Phone TAbor 4087

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

ARTHUR L. BALDWIN

Certified Public Accountant

TAX COUNSELOR

Fontius Building, Denver TA. 1444

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

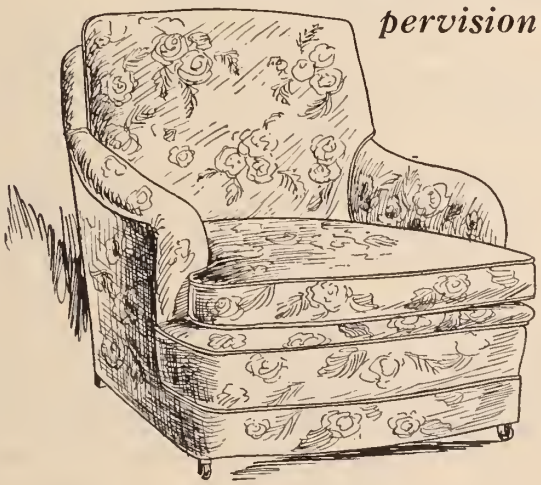
MERCUROCHROME
220 SOLUBLE
in
OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

A COMPLETE HOME FURNISHING SERVICE within one organization and under the constant supervision of the owners.



Furniture
Draperies
Floor Coverings
Upholstering
Refinishing
Cabinet Work

HOWARD LORTON INC.
724-746 SPEER BOULEVARD
DENVER, COLO.

COMPLETE MALPRACTICE PROTECTION

By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE
AETNA LIFE
INSURANCE CO.
Fred E. Breisch, Manager
529 Midland Savings Building
KEystone 6205

COLORADO PHOTO COMPANY

Commercial and Art Photographers



QUALITY AND SERVICE
"We Never Miss"

437 17th ST. MAin 5671
DENVER, COLO.

An Open Letter to Doctors

YOUR PUBLISHER has suggested to us the mutual advantage of the cooperation of our school with the members of your fraternity; and so I am using this space to express our desire to render a service through our Position Department to doctors in the matter of recommending reliable and trained office assistants.

The average doctor is so busy that he is likely to neglect his office work, particularly collections. We frankly believe it is false economy not to employ the right office assistant; one who can meet the public in the right way, remember and record appointments, take care of correspondence, and make collections when collections should be made—promptly.

Doctors are invited to place such matters in the hands of our Employment Secretary, Mrs. Fredericke Broadhurst, KEystone 0822, Room 1, 1410 Glenarm Street. All applications will be received in confidence and recommendations made with great care.

Request. May we ask when inquiry is made about a good office training school that you remember that the Barnes School was selected, after careful investigation, as the best in its field in this territory.

BARNES COMMERCIAL SCHOOL

1410 GLENARM ST., DENVER, COLORADO
Member of National Association of Accredited Commercial Schools



ALL FOOT TROUBLES RELIEVED
BY CORRECTIVE SHOES
LADIES & GENTS SHOES
RIDING BOOTS
FIELD BOOTS
REPAIRING DEPT.
Arch Supports and Foot Appliances
Casts and Lasts Made for Abnormal Feet

EXTENSION SHOES
MADE
TO
ORDER


Before


After

Correspondence or inquiries invited.

W. H. WEBB SHOE CO.
1410 STOUT ST. KEystone 8373



PHOTOGRAPHS
The Best at Reasonable Prices
Ph. KEystone 4450 for Appointment

La Fayette Fults
Studios
522 Tabor Theatre Bldg.
Denver

FURS

REPAIRING : : REMODELING

Fur Garments Made to Order

Large Selection of Silver Fox Scarfs

Andre De Vajda
FURRIER
1451 COURT PLACE
Phone MAin 2792
Denver, Colorado



ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company 38
Ambulance Service Co. 27
American Ambulance Company 11
American Medical and Dental Association 7
American Tent and Awning 19
Art Cast Products 9
Baldwin, Arthur L. 36
Barnes Commercial School 38
Battle Creek Food Company 28
Berbert, George & Sons 27
Betts, Ruby A. 18
Boulder-Colorado Sanitarium 25
Carlson-Frink & Company 5
Carpenter & Hibbard Optical Company 3
Chicago, Burlington & Quincy R. R. 14
Children's Hospital 24
Cocks-Clark Engraving Company 36
Cocomalt 20
Colorado Artificial Limb Company 31
Colorado College of Podiatry 34
Colorado Photo Company 38
Colorado Springs Psychopathic Hospital 22
Colvin Brothers 36
Conway's Floral Shop 15
Corrective Foot Fitters Cover 4
Cragmor Sanitarium 26
Cutter Laboratory Cover 4
Daniel-Smith Engraving Company 31
Denver Lace Cleaning Company 2
Denver School of Swedish Massage 2
De Vajda, Andre 39
Dry Milk Co. 2
Durbin Surgical Supply Company 21
Dutcher Ambulance Service 28
Garden Farm Dairy Cover 3
Glockner Sanatorium 24
Golden Plunge 13
Gore, Chas. T. 17
Graduate Nurses' Club 17
Griffey, E. L. 15
Hermann, A. A. 12
Holyoke Hospital 27
Hynson, Westcott & Dunning 37
Jones, William 16
King, Frank F. 19
Knox Gelatine 33
Lafayette-Fultz Studio 39
Lane Laboratories 29
League Dairy 29
Lederle Laboratories 33
Lilly, Eli & Company 8
Lorton, Howard, Inc. 37
Loxam, George 18
Manitou Mineral Water Company 32
Martina, J. B. 19
McKnight Hospital 27
Mead, Johnson & Company 1
Merck & Company Insert between 4 and 5
Meyer, Henry 36
Miles & Dryer Printing Company 11
Miracle Products Company 33
Montclair Sanitarium 22
Muckle X-Ray Company Cover 2
National Methodist Episcopal Sanatorium 23
Old Homestead Bread Company 6
Park Floral Company 27
Parke, Davis & Company 4
Pencol Drug Store 16
Physicians and Surgeons' Hospital 27
Pratt Recreation Ranch 13
Presbyterian Hospital 25
Provident Mutual Life Insurance Co. 3
Riggs Optical Company 30
Roche Ambulance Service 21
St. Joseph's Hospital 26
Schayer, Max S. 32
Shirley Garage 34
Shirley-Savoy Hotel Cover 3
S. M. A. Corporation 31
Snyder Laboratories 36
Spencer Corsets 15
Storm, Katherine L., M.D. 12
Taylor, Charles B. E. Cover 2
Therapeutic Bath Institute 37
Trowbridge Training School 18
Tulane University 12
Tuxall Corporation 21
Twentieth Century Mfg. Company 5
United States Fidelity & Guaranty Co. 29
U. S. Multigraphers 18
Verba Laryngoscope Co. 21
Webb Shoe Company 39
Western Messenger Service 15
Western Newspaper Union 36
White Flushing Valve Co. 28
Windsor Farm Dairy 34
Winter-Weiss Company 11
Woodcroft Hospital 23
Zim Bread Company 35

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

CORRECTIVE FOOTFITTERS

44 South Broadway Phone Spruce 5276

Denver, Colorado

Corrective shoes with double arch supports for the entire family, fitted by expert and experienced foot fitters from an orthopedic standpoint and according to the type of shoe best adapted to each foot. Eliminate your foot troubles by wearing shoes fitted correctly and scientifically. We co-operate with the medical profession through our licensed chiropodists and trained shoe-fitters, as 90 per cent of our fittings are with people having foot ailments.

Special lasts made for abnormal feet. X-ray service at our Denver store. Write us directly for catalogue and details for ordering by mail or for interview with our traveling representative when in your territory. Mail orders given special attention.

ToxoK



A Specific Against POISON OAK

PREPARED under government license and supervision in dilute alcoholic solution . . . non-irritating, rapidly absorbed. The antigenic strength of each lot is constant.

The CUTTER Laboratory

Established 1897

BERKELEY, CALIFORNIA

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 5 MAY, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918.

U.S. ARMY MEDICINE LIBRARY 1932

TABLE OF CONTENTS

Editorials
- Proprietaries 185
- Mutual Protection 185
- A Century of Medical Progress 186
- National Tuberculosis Association in Colorado 186
- Scarlet Fever Immunization 187
- Immediate Needs in Social Hygiene Work 188

Original Articles
- The Symptoms and Diagnosis of Coronary Artery Disease, Fred M. Smith 189
- Should Children Wear Glasses? William H. Crisp 193
- Congenital Absence of Both Clavicles and Malformation of the Cranium (Cleido-Cranial Dysostosis), W. W. Barber and L. D. Buchanan 196
- Nervous Indigestion, Harry Gauss 202

Case Reports
- Hodgkin's Disease Without Lymphadenopathy, Thad P. Sears and William C. Black 208

Public Health Notes 211

Library Notes, Book Reviews 213

Biography as Related to Medical Terminology 215

Secretarial Notes and Comment
- Statement by the Board of Medical Examiners 216
- Important Meetings in June 217
- American Public Health Association, Western Branch 217
- Preliminary Program, American Association for the Study of Goiter 218
- National Tuberculosis Association Publicizes Colorado 218
- Medical Societies 219
- Obituaries 220
- Woman's Auxiliary 220
- Officers, Committees, Secretaries 222

Wyoming Section
- Editorials
  - Correction 223
  - The Public Policy and Legislative Committee Meeting 223
- Original Articles
  - A Study of the Medical Practice Act in Wyoming, William C. Woodward 225

Hospital Section
- Editorials ..... Ten
- Original Articles
  - The Value of the Woman's Auxiliary to the Hospital, Mrs. Ollie J. Smith ..... Eighteen

Immateria Medica ..... Forty-Two

NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

MOUNT AIRY SANITARIUM

is conducted for the diagnosis and treatment of nervous and mental illnesses and for the residential care of patients afflicted with these disorders in chronic form. Cases of alcoholism and drug addiction received for treatment.

MEDICAL SUPERINTENDENT
J. P. Hilton, M.D.

MEDICAL DIRECTOR
C. S. Bluemel, M.D.

CONSULTING STAFF
Glaister H. Ashley, M.D.
Edward Delehanty, M.D.
Franklin G. Ebaugh, M.D.
George A. Moleen, M.D.
Howell T. Pershing, M.D.
Leo V. Tepley, M.D.
Philip Work, M.D.

1205 CLERMONT ST., DENVER

TELEPHONE: YOrk 0849

HOW'RE COLLECTIONS?

The
American Medical & Dental Association

Offers You

The Best Collection Service Available

Exclusively Professional

Our Adjusters and Collectors are trained in Collecting Professional Accounts, which assures you of Greater Collection Returns

List Those Slow Accounts Now

We Invite Comparison of Results Obtained

A Service That Is Not Duplicated

Credit Reports *Courtesy Notices*

Professional Collections

Ask to Have Our Representative Call and Explain

PUT US TO WORK ON THOSE SLOW PAYERS

Collection Charges as Low as 20 per Cent

No Collection—No Charge

Uncollectible Accounts Are Neglected Accounts

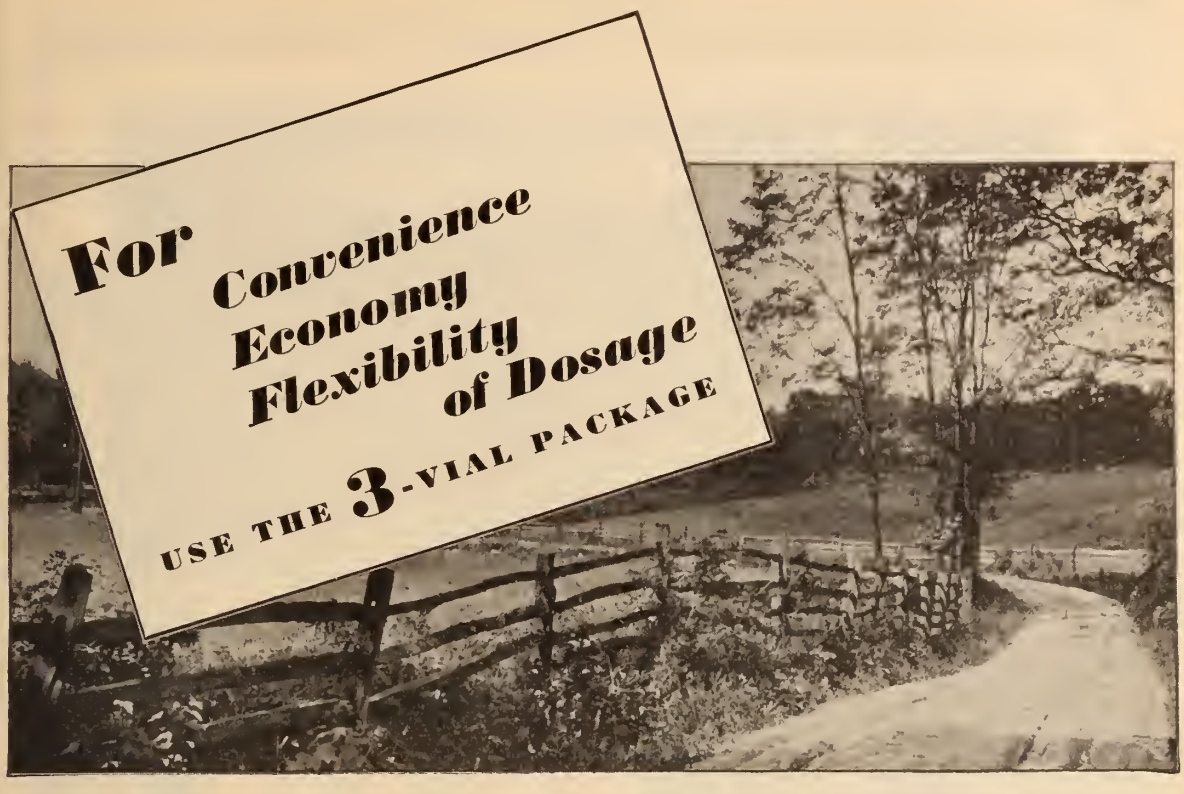
Est. 1912

The American Medical and Dental Association

Credit Men for the Medical and Dental Profession

700 CENTRAL SAVINGS BANK BLDG. PHONE TAbor 2331

DENVER, COLORADO



POLLEN ALLERGEN SOLUTIONS SQUIBB

For the prophylaxis and treatment of spring, summer and fall types of Hay Fever—the 3-vial packages of Pollen Allergen Solutions Squibb offer three distinct advantages.

CONVENIENCE—no dilution or mixing is required.

ECONOMY—Following the dosage scheme recommended, one package will provide a complete course of treatment for two patients.

FLEXIBILITY OF DOSAGE—Enabling the physician to meet the requirements of the individual patient.

Complete 3-vial treatment sets are supplied as follows:

GRASSES COMBINED—contains equal parts of Bermuda Grass, June Grass, Orchard Grass, Red Top and Timothy.

TIMOTHY

RAGWEED COMBINED—contains equal parts of dwarf ragweed and giant ragweed.

WESTERN WEEDS COMBINED—contains equal parts of Marsh Elder, Mugwort, Sagebrush, Slender Ragweed and Western Ragweed.

Pollen Allergen Solutions Squibb are prepared by methods which ensure uniform and maximum amounts of antigenic albumin and globulin fractions of defatted pollens and may be obtained for many individual allergens. Tubes containing solutions suitable for *diagnostic* purposes are also available for determining susceptibility to pollens.

A booklet giving complete information for the prophylaxis and treatment of Hay Fever will be sent to physicians upon request. Address the Professional Service Department, E. R. Squibb & Sons, 745 Fifth Avenue, New York City.

E·R·SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.



A Scene in the Interior of Our Modern Sanitary Bakery

Have You Tried Kelpin?

We are following the advice of the scientists of the nation's highest health office by putting Kelp in bread. It's not a fad or fancy. They consider it of great importance to the public.

The business of the U. S. Department of Agriculture is to look after the farmer's interest and the food of the nation. They employ research scientists of whom Dr. J. W. Turrentine is one.

During Dr. Turrentine's research he discovered that all food grown on land is deficient in an all-important element. This lack is a causal factor in several deficiency diseases, notably goiter and certain nervous and mental diseases.

The cause of this diminishing element, he says (in the Scientific American of April, 1926), is that the rains of the succeeding ages washed this all-important element into the sea. He further says: "The sea is the world's greatest iodine reservoir"—"To illustrate: In the wheat from inland regions there is to be found one milligram of iodine per ton."

Wheat is not the only element that is lacking, but all vegetation that is grown on land is similar.

The doctor says: "The growing child, it is authoritatively estimated, should have a daily supply of one-tenth milligram of iodine. To acquire its rightful share of iodine from such a source, the child would have to eat daily 200 pounds of wheat, or 100 pounds of dried apples or 20 pounds of oats or 11 pounds of dry spinach, or 7 pounds of dry string beans."

KELP IS RICH IN IODIDES

BUTTER KRUST KELPIN SCOTCH HEALTH

One of a series of advertisements in *The Saturday Evening Post,* the *Literary Digest,* and other national magazines, setting forth some of the accomplishments of Medical Science in the diagnosis, treatment, and prevention of disease. - PARKE, DAVIS & COMPANY.



AT the other end of your telephone wire is a man who has spent years preparing to respond to your call for help—your doctor

To qualify himself to answer your summons, he first acquired a sound preliminary education Then he spent four years in medical school. He passed rigid state examinations. He served an internship in a hospital And he has dedicated his life to the practice of one of the most arduous and painstaking professions in the world.

Whether you call your physician suddenly, or make an appointment a week ahead of time; whether you go to his office or he comes to your home; whether your need is slight and simple, or dire and complicated—he brings to your aid the whole of man's protective knowledge against pain and sickness, tempered and fitted to your individual needs by his personal skill and friendly understanding.

Your doctor does not pretend to superhuman powers. He is a highly trained expert, working within the limits of modern scientific knowledge, which he interprets for your own individual benefit. With that knowledge, he can prevent some diseases which until a generation ago were believed unavoidable, he can cure or control others which not so long ago were almost invariably fatal.

If we could give you only one message about your health, it would be this: With such help available, don't rely upon the advice of well-meaning friends without medical training—go to your *physician.*

PARKE, DAVIS & COMPANY
DETROIT, MICHIGAN

The World's Largest Makers of Pharmaceutical and Biological Products

The SECHRIST Pressure Cooker



The Original and Time Tested Sechrist Cooker Improved to Meet Every Possible Requirement

Approved by efficiency experts, Division of State Relations, U. S. Department of Agriculture.

Approved by Home Canners Associations.

Used in Domestic Science Classes of 29 State Universities.

Used in Hospitals and institutions in every state of the country and in most foreign countries.

Range cookers for Gas, Coal, Gasoline, etc., in 11-14-20 and 30 quart sizes.

With few exceptions practically every owner of a Sechrist Pressure Cooker would not sell it for ten times its cost if another was not obtainable. However, the price is low—easily within your reach. Send for descriptive booklet and price list.

DENVER METALS FOUNDRY COMPANY
DENVER, COLORADO

LISTER'S first antiseptic agent was lint soaked in crude carbolic acid. His perfected technique gave surgery a new outlook, made it safer, enlarged its scope.

Results many times as good as Lister's would be considered quite unsatisfactory today. Physicians and surgeons demand an agent distinctive for combined germicidal value and extremely low toxicity to animal tissues. Merthiolate, Lilly, an organic mercurial compound—sodium ethyl mercuri thiosalicylate—meets the requirements. It is potent in the presence of organic matter, non-irritating to tissue surfaces, non-toxic, and non-hemolytic for red blood-cells.

From the painting, "The Surgeon," by Teniers



PROGRESS THROUGH RESEARCH


THE usefulness of Lilly Ephedrine Products justifies the tradition that has come down through the ages following the recognition of the drug Ma Huang more than fifty centuries ago by Emperor Shen Nung, reputed author of the Pentsao, or Chinese dispensatory.
Nagai isolated pure Ephedrine in 1887. Chen and Schmidt investigated its epinephrine-like effects in 1923. Scientific study of the chemistry and applicable forms by Eli Lilly and Company followed, resulting in a list of Ephedrine preparations of purity, refinement, concentration, and therapeutic activity.
From a painting of Nankow Pass
INHALANT No. 20 EPHEDRINE COMPOUND
Lilly
INHALANT No. 21 EPHEDRINE (PLAIN)
ONE FLUID OUNCE (30 CC.)
Lilly
LILLY
PROGRESS THROUGH RESEARCH



The success of your kitchen depends on the method of cooking and the kind of cook ware used. Cook without water, bake without an oven, fry without smoke.

THERE IS AN ART CAST UTENSIL FOR EVERY PURPOSE

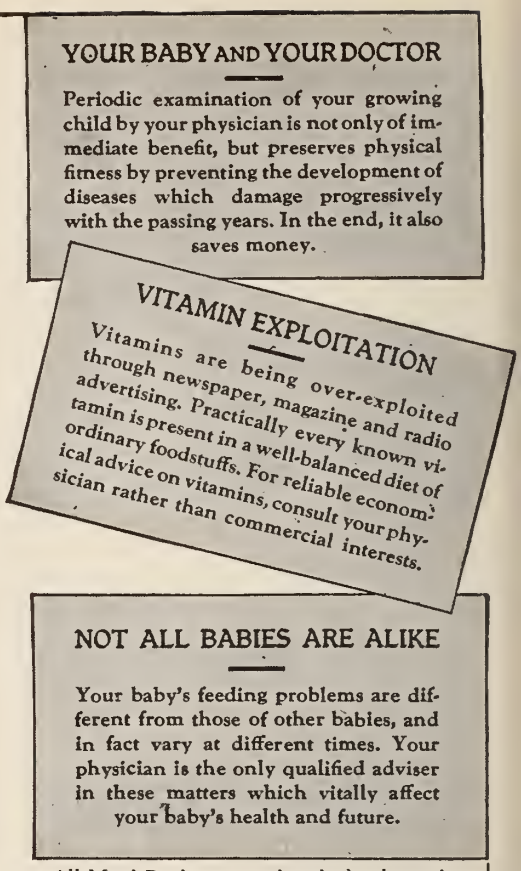
ART CAST PRODUCTS, Inc.

Denver's exclusive cook-ware store.

17 SO. BROADWAY, DENVER SUnset 0438

"Deeds, Not Words"

HOW MEAD JOHNSON & COMPANY, MAKERS OF INFANT DIET MATERIALS* ASSIST IN KEEPING PEDIATRIC CASES IN MEDICAL HANDS



All Mead Products are advertised only to physicians, without dosage directions, or selling "literature" accompanying packages.

HELPING TO KEEP INFANT FEEDING IN MEDICAL HANDS

EVERY day, many thousands of printed slips like these here illustrated are distributed in all packages of Mead's Infant Diet Materials and are read by mothers and fathers in every community and in all stations of life. There is no ulterior motive in this effort to educate laymen on the importance of medical advice, as no reference is made to Mead products or their use. This is only one of the practical ways by which we live our creed: infant feeding and vitamin therapy properly belong in the hands of the medical profession.

*MEAD'S VIOSTEROL, MEAD'S STANDARDIZED COD LIVER OIL, MEAD'S CEREAL, MEAD'S DEXTRI-MALTOSE NOS. 1, 2 AND 3, MEAD'S DEXTRI-MALTOSE WITH VITAMIN B

Mead Johnson & Company, Evansville, Indiana, U.S.A.

"Washed Air"

at Correct Temperatures Circulates Constantly

in a Modern

SERV-ICE Refrigerator



Telephone TAbor 1251 and request us to send our display car to your home. In this way you may see the most modern ice refrigerators with out trouble or expense. Call today!

Air circulating constantly through the ice and food chambers of a SERV-ICE Refrigerator, is "washed" as it passes across the ICE. A thin film of water around the ice absorbs odors and bacteria liberated by the foods. As the ice melts, these bacteria and odors flow down the drain, out of the refrigerator! This cleansing process keeps air in the refrigerator always fresh and pure. Temperatures are safe in a SERV-ICE Refrigerator. Two inches of corkboard insulation keep cold inside Safeguard YOUR foods and YOUR family's health this easy, economical way. Let us give you all details without obligation.

LIBERAL ALLOWANCE

On Your Old Ice Box

Buy a new SERV-ICE Refrigerator on EASY TERMS. Make only a Small Down Payment. The balance may be paid conveniently over a period of months.

Denver Ice and Cold Storage Company

2635 BLAKE ST. PHONE TAbor 1251

ELI LILLY AND COMPANY

FOUNDED 1876

Makers of Medicinal Products
for Use Exclusively
Under Professional Direction



Lilly
Ephedrine Preparations

There is a suitable Lilly Ephedrine Product to meet a wide range of requirements in the treatment of asthma, hay fever, and other allergic conditions.

Prompt Attention Given to Physicians' Inquiries
Address Principal Offices and Laboratories, Indianapolis

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: W. H. Crisp, M.D., *Chairman*, C. F. Kemper, M.D., C. S. Bluemel, M.D.

VOL. 29 NUMBER 5 MAY, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

PROPRIETARIES

MANUFACTURERS of proprietary remedies have found that the cheapest method of marketing their products is through physicians. The liberal supply of samples has a deeper meaning than the generosity of the makers. The busy doctor passes out the samples, usually labelled or at least in distinctive containers through which the patient may identify and obtain more of the product for himself and friends. Many of the cartons have labels difficult or impossible to remove and the physician does not trouble himself to alter them. The product is thus identified and endorsed. Future quantities are purchased by the patient directly from the druggist by name and without discrimination in most instances.

It is an entertaining and instructive experence to converse with your druggist upon this topic. He will tell you of the unbelievable quantity of proprietaries which pass over his counter to the laymen—having been asked for by the trade name. The pharmacist has not infrequently advised against such self-medication and has watched his customer carry on to the next drug store, promptly to walk out with the package in hand. Ask the druggist the respective prices of time-tried therapeutic agents purchased by pharmacologic and by trade names. The same ratio will be found applicable to individual drugs and to compounds. Immediate deductions will conjure up the enormous and unwarranted premiums paid for the patent names and the misplacement of confidence in proprietaries which rightfully belongs to medical men. The physician has paid dearly for his carelessness and inaptitude for writing prescriptions. He has become the victim of any easy habit, made easier for him by the manufacturer; he has been exploited as an efficient advertising medium working against himself.

It is fair to allow ethical manufacturers a reasonable premium for superior quality. Hence it behooves the physician to familiarize himself with the dependability of the manufacturer and the relative prices of his commodities.

One finds the proprietary names more simple, more easily remembered, more easily written. Bear in mind they are also easier for the patient to remember, re-obtain, and pass on to his friends. Consider carefully: Is the manufacturer's name worth the difference; are not physicians thoughtlessly encouraging self-medication; are we needlessly increasing the cost of medical care?

MUTUAL PROTECTION

UNFAVORABLE comment and lawsuits not infrequently have their inception in the careless remark of a physician regarding his patients' former care. One seldom enhances his own prestige through disparagement of another. Until medicine becomes an exact science and human personality less fallible, the most conscientious application of knowledge and skill will not invariably lead to recovery. Facts or fancies are readiy distorted by the lay mind; without allowing this, a fellow physician may be

done an injustice. Each is entitled to have his work judged in its true light.

A physician's words and deeds frequently come back to him, distorted though they may be. There is therefore no argnment against accurate records. Notations upon verbal advice and telephone conversations are scarcely less important than records of treatment and laboratory findings. Clear thinking is thus enhanced, ideas are crystallized, self-contradiction is minimized. Above all, if one is called to task, his reputation and pocketbook at stake, the recorded friendly facts are his best protection. They will correct misunderstanding and disclose malice.

It is an obligation of the physician to his colleague to avoid reflection upon his professional integrity. He owes his own reputation the protection of complete and accurate records. The profession's prestige depends upon both.

A CENTURY OF MEDICAL PROGRESS

THE Chicago Century of Progress Exposition in 1933 will present exhibits depicting the century's strides in the causes, detection, and treatment of disease. Four classes of exhibits will prevail:

1. Historical, illustrating the revolutionary medical discoveries and achievements of the past hundred years.
2. Educational, visualizing the present status of the medical sciences.
3. Spectacular, appealing exhibits which will incite the wonder and admiration of the layman.
4. Industrial, illustrating the dependence of industrial development upon science and scientific protection of the worker.

The facts will be displayed in solid, simple, graphic, and easily intelligible form. The world has been invited; the fair is international in scope and participation. The financial program is assured with the floating of a ten million dollar Gold Note Issue, secured by 40 per cent of the gate receipts and $12,176,000 in individual guarantees. Transportation and housing facilities for the immense crowds are now being planned. A wealth of new materials and devices for the enhancement of human welfare and happiness constitute the structures upon the 427 acres of mainland, island, and enclosed water now planned for the Exposition. An additional 396 acres of contiguous land is available for use if necessary. The location is ideal.

The medical portion of the Exposition will be an important contribution to public health education. Dr. William Allen Pusey, Past President of the American Medical Association, and the American Dermatological Association, is a member of the Board of Trustees and Chairman of the Advisory Committee on the Exhibits of Medical Sciences.

NATIONAL TUBERCULOSIS ASSOCIATION IN COLORADO

NOT since 1911, when the seventh annual meeting of the National Tuberculosis Association was held at Denver, will there be such an outpouring of tuberculosis enthusiasts as will occur at Colorado Springs, June 6 to 9, when the National Tuberculosis Association meets again for its twenty-eighth annual meeting at Colorado Springs.

Tuberculosis enthusiasts, medical and lay, will be present from every part of the United States. All of those who are interested in tuberculosis, whether as a specialist, as physicians in general practice, or as lay workers interested in the social aspects of the problem, will find at this meeting in Colorado much of interest in the solution of their particular problems.

The program of the meeting will open formally on Monday night, June 6. The American Sanatorium Association will meet in Denver earlier in that same day for a morning and afternoon session. Doctor Alfred Henry of Indianapolis, President of the Association, will preside at the opening meeting and will deliver the presidential address. Doctor Kendall Emerson, Managing Director of the Association, will present the report of the Executive Office. Doctor Henry Sewall, Chairman of the Trudeau Medal Award, will announce the winner of this famous medal.

On Tuesday morning, at 9:30, the regular section meetings will begin. The Clinical Section, under the chairmanship of Doctor J. Waring, well-known physician of Denver, will hold two regular sessions and a joint session with the pathological section. Among the speakers and topics to be discussed before the Clinical Section, the following are of special interest:

"Atelectasis and Its Relation to Lung Pathology," Dr. Pol N. Coryllos, New York.

"Unexpected Diagnosis of Tuberculous Empyema," Dr. John Alexander, Ann Arbor, Michigan.

"Joint and Bone Tuberculosis in Children," Dr. Clarence L. Hyde, Akron, Ohio.

"Experience in the Detection of Pulmonary Tuberculosis in 3,000 Students Entering Yale University," Dr. Willard B. Soper and Dr. Julius L. Wilson, New Haven, Conn.

"Treatment of Active Forms of Tuberculosis," Dr. George G. Ornstein and Dr. David Ulmar, New York.

"Primary Infection of Tuberculosis Among Nurses," Dr. E. K. Geer, St. Paul, Minnesota.

"Treatment of Addison's Disease With the Cortical Hormone of the Suprarenal Gland," Dr. Carl H. Greene, Rochester, Minn.

"A Study of the Comparative Value of Paper and Celluloid Films for Chest Roentgenogram. Report of 1,000 Cases." Dr. J. Burns Amberson, New York.

The Joint session of the Clinical and Pathological Sections will be a symposium on "Blood Count in the Diagnosis of Active Tuberculosis," with papers by Dr. Florence R. Sabin of New York, Dr. E. M. Medlar of Mount MeGregor, N. Y., Dr. David T. Smith of Durham, N. C., Dr. Charles A. Doan of Columbus, Ohio, and Dr. John W. Flinn of Tucson, Ariz.

The Pathological Section, under the chairmanship of Dr. David T. Smith, Durham, North Carolina, will hold three sessions. The first session will be a symposium on the bacteriology of the tubercle baeillus, with papers by Dr. Theobald Smith of Princeton, New Jersey, Dr. G. B. Reed of Kingston, Ontario, Dr. Morton C. Kahn of New York, and Dr. Gerald R. Dowd of Saranae Lake, N. Y.

In the other sessions of the Pathological Section, among the papers of particular interest are the following:

"Observations on the Pathogenesis of Pulmonary Tuberculosis: (1) The Primary Infection, (2) Secondary or Reinfection," Dr. Henry C. Sweany, Chicago, Illinois.

"The Cause of Tuberculin Hypersensitiveness in the Guinea Pig," Dr. C. H. Boissevain, Colorado Springs, Colorado.

"Experimental Tuberculosis in Guinea Pigs," Dr Emil Bogen, Olive View, California.

"A Study of So-called Skin Lesions of Tuberculin Reacting Cattle," Dr. L. L. Daines, Salt Lake City, Utah.

"Studies in the Gastric Function in Tuberculosis. A report of 1,000 Ewald Meals in Tuberculous Patients," Dr. Seymour J. Cohen, Chicago, Illinois.

"New Culture Method for the Isolation of Tubercle Bacilli," Dr. H. J. Corper, Denver, Colorado.

"The Quality of the Lymphocyte and Prognosis in Tuberculous Disease," Dr. Bruce K. Wiseman and Dr. Charles A. Doan, Columbus, Ohio.

"Does the So-called Fatty Capsule Serve to Protect the Tubercle Bacillus?", Prof. John Weinzirl, Seattle, Wash.

The Sociologieal Section will hold three sessions. The first session will have a symposium on "Racial aspects of the Tubereulosis Problem." The second session will be a symposium on "The Child's Bill of Rights in Relation to Tuberculosis." The third session will consist of miscellaneous papers.

It is anticipated, on account of the extremely low railroad rates, that there will be a large attendance from the east and the middle west at the meeting. The National Tuberculosis Assoeiation is planning a speeial train from New York via New York Central, Northwestern, and Union Paeific Railroads.

A very cordial invitation is extended espeeially to all Colorado physieians as well as to physieians from other nearby states, to attend all meetings of the National Tuberculosis Association at Colorado Springs. Membership is not at all a prerequisite for attendanee at the various sessions. Furthermore, there is no registration fee required. Anyone may, therefore, feel quite free to take advantage of all of the sessions without any finaneial obligation.

SCARLET FEVER IMMUNIZATION

RECENT scientifie medical experiments have eliminated some of the disagreeable reactions that often result from searlet fever immunization and give hope that some day physicians may prevent searlet fever as surely as they now are able to prevent diphtheria and smallpox.

However, at the present time many physi-

cians feel that "shots" should not be given in scarlet fever cases, as experience has taught them that often the reaction from the administration of scarlet fever antitoxin is likely to be almost as bad as the disease itself.

Quoting from an article that appeared in the October number of the Journal of the Indiana State Medical Association, the bulletin says: "Justification for the use of scarlet fever streptococcus toxin for the production of active immunization is founded on data presented by various individual workers. The use of such toxin, however, is not without unpleasant reactions, which, while not in themselves dangerous to life are of sufficient moment to make the physician reluctant to use the toxin and more often to cause the parent to refuse further treatment. The need of five immunizing doses makes its use expensive whether administered by a private physician or en masse as a public health measure. In order to receive general favor, preventive use of this measure must be free from discomfort, require a minimum of injections, and be inexpensive."

Apparently Surgeon M. Z. Veldee of the United States Public Health Service has taken a step in that direction. After long experimentation he has announced that "the reaction following injections of scarlet fever antitoxin occur much less frequently and their severity is markedly diminished" if the scarlet fever antitoxin is first subjected to heat and a treatment of formalin.

Dr. Veldee reported that of 115 persons tested with the antitoxin that had been treated by his method only three gave a positive reaction. Dr. Veldee in his report said, "Experimental work presented confirms the findings of other workers that scarlet fever streptococcus antitoxin can be rendered much less toxic by subjecting it to heat and formalin. The amount tolerated by susceptible individuals in each injection is greatly increased by this method so that the number of doses required for actual immunization may be reduced; at the same time the reaction following the injections occur much less frequently and their severity is markedly diminished."

IMMEDIATE NEEDS IN SOCIAL HYGIENE WORK

AT THE New York Regional Conference Dr. William F. Snow, executive of the American Social Hygiene Association, sums up the outstanding points and needs in the social hygiene field as follows:

1. Syphilis and gonorrhea must be considered as communicable diseases, striking at the health and happiness of family life.
2. Prevention of these diseases may be accomplished through education of the public.
   a. To the dangers of exposure and infection.
   b. To a knowledge of means of avoidance.
3. In case infection occurs, early diagnosis and treatment are of great importance. Necessary to secure this are:
   a. Enlisted interest and special training of private physicians, who treat 60 to 70 per cent of all cases.
   b. Adequate facilities for treatment, through properly equipped and staffed clinics for indigent patients, including such patients in rural areas; and through the provision of free or low-cost drugs for such patients in private practice.
4. All agencies concerned with public health and welfare should cooperate in working toward these objectives as a minimum program. Even though large sums of money are not available, much can be accomplished by well-directed team-work.

Attention of our Colorado readers is directed to the article entitled, "A Study of the Medical Practice Act of Wyoming," in the Wyoming section of this issue. The author, Dr. Woodward, holds the degree LL.M. as well as that of M.D., and is thoroughly qualified to handle this subject. Many of Wyoming's legislative problems are pertinent in Colorado. The thoughts embodied in this discussion are worthy of the careful attention of every medical man in the state.

THE SYMPTOMS AND DIAGNOSIS OF CORONARY ARTERY DISEASE*

FRED M. SMITH, M.D.
IOWA CITY, IOWA

It has not been customary to consider coronary artery disease as a clinical entity. The clinical manifestations are extremely varied, and there is often a discrepancy between the clinical and pathological findings. There is, furthermore, usually a more or less general involvement of the arterial system. The clinical picture is thus frequently complicated by symptoms from various other organs. In spite of these difficulties or possible objections, however, the consideration of coronary artery disease as such gives a more comprehensive viewpoint of the subject.

Symptoms

The cardiac disability in the form of heart disease is either primarly dependent upon an insufficiency of the coronary circulation or an excessive cardiac load from a prolonged hypertension. These two factors are commonly associated, but either may dominate the picture. The variation in the extent to which these agents contribute to the production of the cardiac disability and the fact that the coronary arteries are capable of a remarkable adaptation through the development of an extensive collateral circulation explains in a large measure the diverse character of the symptomatology.

The onset may be very insidious and perhaps overshadowed or even entirely masked by symptoms directing attention to some other organ, or on the other hand, be extremely abrupt as in coronary occlusion. The appearance of premature contraction or the occurrence of paroxysms of auricular fibrillation which may later become permanently established may be the first indication of an impaired cardiac function. Usually, however, the first symptom is that of shortness of breath or the consciousness of a substernal distress upon exertion. The frequent association of the latter with upper abdominal discomfort often convinces the patient that he has a gastric disturbance. In some the initial manifestation is that of a nocturnal dyspnea. Occasionally the symptoms are precipitated by a coronary occlusion. The onset commonly follows an upper respiratory infection, complicated by bronchitis which persists longer than usual. More frequently the onset is directly related to overexertion. Men above fifty-five years of age, particularly those blessed with a rugged physique, are often inclined to overestimate their physical ability. This frequently leads to over-exertion and irreparable cardiac damage. Various other factors, such as emotional upsets, loss of sleep, and indiscretion in diet, at times appear to be related to the onset of cardiac symptoms.

The most common clinical picture is that of congestive failure with progressive edema and the development of a generalized anasarca. In many of these there is at no time significant cardiac pain. In some a history of angina may be obtained. This feature, however, is often over-shadowed by the shortness of breath and not elicited, except by direct questions. There is another group in which the picture is that of angina pectoris. In the beginning there may be no appreciable shortness of breath. Later, however, during the height of the distress it frequently becomes a more prominent feature. In some the picture is terminated by an attack of angina pectoris or coronary occlusion. Others pass into congestive failure either through a gradual progression of the cardiac disability or possibly because of a coronary occlusion.

Angina pectoris is one of the most typical manifestations of coronary artery disease. The sclerosis is usually advanced and often associated with partial or even complete obstruction of certain vessels. The findings in the coronary arteries associated with coronary occlusion are comparable to those seen in angina pectoris. It is thus not surprising that angina pectoris may be precipi-

*From the Department of Internal Medicine, State University of Iowa. Presented before the sixty-first annual meeting of the Colorado State Medical Society, September 15, 1931.

tated and often terminated by a coronary occlusion. Pathological studies, on the other hand, indicate that the sclerosis of the coronary arteries is in general much less extensive in the group in which the manifestations are strictly those of the congestive type of failure. There is less likely to be a significant reduction in the lumen of the vessels, and consequently, as might be expected, the incidence of coronary occlusion is not nearly as great.

Physical Findings

The physical findings are extremely varied. While the structural alterations in the heart are usually very evident, yet the findings in certain instances, particularly in angina pectoris, may be entirely negative. There is frequently a hypertension or history of an elevated blood pressure. In those with a hypertension there is invariably a significant increase in the size of the heart. This is more apt to be a prominent feature in those with congestive failure, and in many of these a hypertension has been an important factor. Certain forms of cardiac irregularities, as premature contractions and auricular fibrillation, are common findings. These may be the first indication of an impaired cardiac function, and the latter is frequently responsible for precipitating the congestive failure. Heart block and auricular flutter are occasionally observed. A muffling of the first sound at the apex, a gallop rhythm, and perhaps a faint systolic apical murmur may be the outstanding auscultatory findings. The first sound is occasionally accentuated, or slightly rough. Often there is a well developed systolic murmur at the apex, which may be soft blowing, harsh, or even musical in character. If an auricular fibrillation is present, the first sound at the apex varies in intensity and when the rate is rapid is apt to be choppy. The associated systolic murmur likewise varies in intensity from cycle to cycle. The aortic second sound is usually accentuated and occasionally slightly amphoric. There is often a faint systolic murmur in this location, which is transmitted to the vessels of the neck. This murmur is seldom rough unless associated with aortic stenosis. It is well to bear in mind that an arteriosclerosis is an important etiological basis for an aortic stenosis. An occasional faint diastolic murmur is heard. If, however, there is a significant aortic regurgitation, it is usually syphilitic or rheumatic in origin. In the uncomplicated arteriosclerosis it is rarely possible to demonstrate much increase in the size of the aortic except as manifested by an extension upward. Under these circumstances an impulse may be transmitted to the palpating finger in the suprasternal notch.

During the early course of agina pectoris there may be no significant cardiac findings. The diagnosis may thus be solely dependent on the clinical history and the demonstration of an arterioselerosis elsewhere. In the majority, however, definite structural changes may be demonstrated of the general character outlined above.

The kidneys are rarely spared in the arteriosclerotic process. The urine frequently shows a trace of albumin, and on microscopic examination hyaline and granular casts are usually seen. The renal damage may be more extensive, and occasionally a renal insufficiency is observed. Cardiac and renal failure may appear about the same time. Either may precipitate the other. In men the possibility of a bladder retention from an enlarged prostate should always be considered. Diabetes mellitus is a rather frequent complication. The changes in the peripheral arteries may be extensive, but often not comparable to those of the coronary or cerebral arteries.

A fundus examination is essential to a careful survey of the vascular system. The findings in the retinal vessels indicate the general extent of the cerebral arteriosclerosis and are representative of the changes in the smaller arteries elsewhere.

Diagnosis

Coronary artery disease, even in the advanced form, may not be recognized because of the absence of clinical manifestations. The symptoms may be indefinite and difficult to connect with the heart. The clinical history is by all means the most important method of determining the functional effi-

ciency of the heart and may alone permit a diagnosis, as in angina pectoris even in the absence of definite physical findings. Coronary artery disease is a possibility in every individual in the arteriosclerotic age. An upper abdominal discomfort may be cardiac in origin and an indefinite chest pain may indicate angina pectoris. A persistent bronchitis or an asthmatic-like attack often represents a beginning failure of the left ventricle. The appearance of a paroxysm of auricular fibrillation and certainly the onset of a permanent absolute irregularity often is the first evidence of an impaired cardiac function. A careful estimation of the condition of the cardiovascular-renal system is an outstanding obligation of the physician to every individual of the arteriosclerotic age who seeks medical advice, regardless of the apparent nature of the illness. The history of a hypertension or the discovery of an elevated blood pressure should at once arouse suspicion of significant arterial changes. The cardiac findings not infrequently seem unimportant or may even be overlooked unless attention is focused on the heart by the history. A muffling of the first sound at the apex and a gallop rhythm are occasionally the only findings that attract the attention of the examiner. A combination of these findings, however, always means a serious impairment of the cardiac function.

Angina Pectoris

Angina pectoris in the typical form is readily recognized. While the distress may vary in character and have a wide range of distribution, it is invariably excited by factors which increase the work of the heart. This exciting factor may be the added effort of walking rapidly, going up an incline or climbing stairs, or it may be the load imposed on the heart by the increase in the blood pressure resulting from excitement, fear, or anger, or again the interference with the cardiac function from the over distension of the stomach by a full meal or possibly from an accumulation of gas. Ordinarily the relationship of these various exciting agents and the pain is readily elicited by a careful history.

In those with an unusual distribution of the pain, the diagnosis may be difficult. When the distress is confined to the epigastrium and lower chest, and particularly when associated with an accumulation of gas, the condition is frequently mistaken for a gastric disorder or gall bladder disease. The early manifestations of angina pectoris may appear to be entirely gastric and their significance not appreciated until later developments. Ordinarily, however, a careful detailed history and a critical survey of the cardiovascular system will enable the physician to come to a fairly definite conclusion regarding the possibility of an angina. In the atypical form the history is by all odds the most important step in the diagnosis and often the determining factor.

The precordial or upper chest pains from an intercostal neuralgia or the nerve root pressure from a mediastinal tumor, tuberculosis of the vertebrae, or an hypertrophic osteoarthritis of the spine may at times arouse suspicion or even closely resemble that of angina pectoris. Usually, however, the history is different, and the physical examination will point to other possibilities. Here the relationship of the distress and agents which increase the work of the heart is often a determining factor in the diagnosis. Instances are recalled in which the character and distribution of the pain might well conform with that of angina; yet the discrepancy in the above detail finally led to the discovery of the cause elsewhere.

Coronary Occlusion

The space allotted will not permit a detailed discussion of coronary occlusion. The condition may be regarded as a complication of coronary artery disease. It is usually associated with an advanced sclerosis of the coronary arteries and is thus common in the group with angina pectoris. In the typical form the character, distribution, and duration of the pain, the accompanying shock and fall in blood pressure, the symptoms and signs of cardiac damage, and the later development of temperature and leucocytosis produce a distinctive clinical picture. There is, however, a wide variation in the clinical manifestation which depends in a large measure upon the extent of the

myocardial damage. The damage to the heart may thus be so overwhelming that the patient dies suddenly or within a few hours, or on the other hand so slight that few or no symptoms are produced and the condition possibly not recognized. Again in those instances in which the pain and accompanying shock predominate the clinical picture, the associated symptoms and signs of cardiac damage may vary to a remarkable extent. Occasionally there is no significant dyspnea and no demonstrable structural change in the heart except as demonstrated by the electro-cardiograph. The dyspnea may be a more prominent feature, and there are perhaps obvious signs of myocardial damage. Finally, in a small group, the onset is manifested by intense dyspnea and little or no pain.

The pain is the outstanding and most characteristic symptom of coronary occlusion. The onset may be gradual or abrupt. In those with an abrupt onset the patient is not infrequently awakened from a sound sleep, often during the early hours of the morning, by the terrific distress. The character of the pain is similar to that of angina pectoris, except perhaps for a greater predisposition for the lower sternum and upper abdomen. In an occasional instance, as in angina, the distress may be entirely confined to the abdomen. The distress, particularly in those with gradual onset or in the milder forms, is often described as a mild feeling of oppression or heaviness within the chest. On the other hand, it may be the most agonizing, tearing, boring, or constricting pain. The duration in the more severe type varies from a few hours to days; it may be present in a minor degree even after repeated hypodermic administrations of morphine. While the above type of pain often follows the occlusion of a larger vessel, instances of fairly large cardiac infarction are frequently encountered at necropsy which had not manifested significant symptoms. The pain, if present, must have been of a very mild nature or, in those with angina pectoris, no more than experienced during an ordinary attack. Again the clinical picture may be so dominated by dyspnea that the pain is overlooked.

The associated shock with the ashen-gray color and profuse perspiration, the feeble and even unperceptible pulse, the fall in blood pressure, the varying degree of dyspnea, and the later development of fever and leucocytosis are other important features in the clinical picture.

The findings are common to the arteriosclerotic type of heart disease. It is important to remember, however, that there may be no demonstrable structural changes prior to the cardiac accident. Even though there may have been some increase in the size of the heart and perhaps a systolic apical murmur, the damage to the myocardium often evokes a progression of these features or the development of new signs. The precordial friction rub, which is occasionally heard on the first or second day after the cardiac accident, is the only distinctive physical sign of cardiac infarction.

Those in whom the pain is confined to the epigastrium or extends to this region, particularly when accompanied by tenderness, rigidity, nausea, and vomiting, the diagnosis may be extremely difficult. Patients of this age may have perforating peptic ulcers, gall bladder disease, or acute pancreatitis. The history is extremely important. It may point to a peptic ulcer or gall bladder disease, or may indicate a previously existing angina pectoris. A careful survey of the heart will in most instances prevent the physician's overlooking a coronary occlusion. It is true that the cardiac findings may not be very conspicuous, yet the rapid and feeble pulse, reduction in blood pressure, the distant and indistinct cardiac tone, and perhaps premature contraction or possibly a gallop rhythm, are enough to indicate that the heart has probably been damaged. Further observation may establish a progression of these signs, the appearance of new ones, and possibly a precordial rub, which definitely establishes the diagnosis.

Coronary occlusion has frequently been mistaken for the severe forms of angina pec-

toris. The character and distribution of the pain may be identical. The pain in coronary occlusion, however, is usually more lasting and may continue for hours or days, even after repeated hypodermic administrations of morphine. The pain is, moreover, ordinarily accompanied or followed by some manifestation of cardiac damage which is the deciding factor in the diagnosis.

The differentiation of angina pectoris from the minor forms of coronary occlusion is extremely difficult, yet very important from the standpoint of treatment. In every instance in which the pain is more severe than usual or comes on while at rest, the possibility of coronary occlusion should be considered and the patient given the benefit of a period of absolute rest. If in questionable cases the heart is carefully watched for possible changes in the findings, the clinician will occasionally be rewarded by the detection of physical signs which will enable him to establish the diagnosis of coronary occlusion.

SHOULD CHILDREN WEAR GLASSES?

WILLIAM H. CRISP, M.D., D. OPH.
DENVER

One often hears, from layman or even from physician, a complaint that so many school children, including children of the preschool age, wear glasses; and the ophthalmologist is often asked whether the eyes of children are weaker in the present than in former generations.

It may safely be said that the eyes of children are just as strong in this as in former generations, but that heavier demands are made upon the eyes of the children of today, alike in and out of school, than were made upon the children of an earlier day. It may further be said that the children of today are given, in a much greater degree, the benefit of relief from eyestrain such as would interfere with their studies or other opportunities in life, and such as might damage their eyes or their general health.

Very many parents and not a few physicians have an exaggerated reluctance to plan the wearing of glasses by school children or those of preschool age. The reasons for this are several: First perhaps comes a feeling of repugnance to recognizing in this way the existence of a defect. With some people the esthetic objection is of decided significance, and in some parents it is overwhelming; they feel that the child's features are disguised and disfigured by spectacles. Of more practical consequence is the thought that the child will be hampered at play. Lastly, in both parents and physicians, not excluding some ophthalmologists, there is a persistent unwillingness to believe that glasses ought to be necessary or advantageous in more than a very small number of children.

In some degree all of these objections are deserving of respect, except the last mentioned, which is in the nature of a superstition based upon incomplete understanding of facts. It is closely akin to the prejudice against the wearing of spectacles even in adult life, a prejudice which is not now so common in the United States but still prevails rather widely in some European countries.

When is it proper to put glasses on a child? Whenever this can be done with distinct advantage to the patient, either as to improvement of vision or as to relief of symptoms which are due to avoidable eyestrain.

Among most ophthalmic physicians, there is no substantial question as to the wisdom of prescribing glasses for strabismus, or "cross-eyes," although there is appreciable difference of opinion as to the frequency with which glasses will relieve this condition. Perhaps the commonest mistake in this connection is that of ordering for a strabismic or "cross-eyed" child considerably less than the full correction as found under cycloplegia. It is important to remember that strabismus is not usually relieved by glasses unless eyestrain has been a factor in the production of the extrinsic muscular disorder.

In this relatively enlightened age, none but religious fanatics and quacks, with a few misguided followers of the latter, will deny that some children, alike before and during school age, are seriously handicapped for the juvenile battle of life until fitted with the proper glasses.

But according to some workers, who are willing to admit the value of correcting moderate refractive errors in the adult, the frequent correction of similar errors in the school child is ill-judged and inadvisable. This belief is perhaps based upon the impression that the average child does not use his eyes so keenly as an adult, or that his physique is endowed with greater nervous and physical endurance, or that the greater elasticity of his crystalline lens will enable him to tolerate a constant effort of adjustment such as would create disagreeable symptoms in the older patient.

Yet the more important sufferers from carelessness or skepticism as to the correction of juvenile refractive errors are those children, of normal or even brilliant mentality, whose need for glasses is not such as to give rise to any disturbance in the extrinsic ocular muscles, or to produce a noticeable reduction in visual acuity.

In children as well as in adults, symptoms due to eyestrain are more likely to appear in those of delicate physical constitution, unstable nervous equilibrium, or exceptionally eager and intelligent mental reactions.

Practically all the symptoms arising from eyestrain in adults may rest upon a like basis in children. Not to recognize this fact is often to do injustice to a child who is brought on account of a suspicion of refractive error.

While the refractive measurement of children's eyes is often regarded too lightly, it is on the other hand sometimes credited with being more difficult than it really is. Many people (and this includes some physicians) make the mistake of exaggerating the extent to which the cerebral processes of the young school child are inferior to their own; and such individuals therefore depress and inhibit the child's mind by treating him as belonging to a lower intellectual plane; when, as a matter of fact, much more may be accomplished by a judicious attitude of mental equality, encouraging the child's mind to display its powers.

In the experience of the present writer a large proportion of the children who are brought for an opinion as to the need for wearing glasses are just as easy to examine down to the smallest fraction of defect (whether the error be farsightedness, shortsightedness, or astigmatism), and just as alert and interested in responding to subjective tests, as the intelligent and cooperative type of adult patient.

Some general physicians are guilty of the mistake of referring their patients to opticians or optometrists for measurement of refractive errors, or in other words for examination as to the presence or absence, and the amount, of need for glasses. This mistake is sufficiently dangerous as regards adult patients, but it is even more so when we are dealing with the eyes of children. Although a few children may be more or less correctly tested without the use of "drops" (atropin or homatropin) for relaxation of the ciliary muscle, prescriptions for young children should never be given without resorting to this means of correct measurement; and none of the bungling for which so-called optometrists are responsible in their attempt to assume professional status is more distressing or more extreme than the mistakes which they make in measuring the eyes of children.

On the other hand, when "drops" are used, it is a mistake to assume that all young children, or even the majority of them, should be refracted merely with the retinoscope. A great many measurements made with a retinoscope, alike in children and in adults, are not sufficiently final or precise for the best results, but can be improved in important details by careful and skillful application of the subjective tests. In the majority of children, quite as much as in the majority of adults, inexact refractive work is likely to be punished by failure to obtain relief from disturbing symptoms of eyestrain.

The parents of the child whose eyes are

subject to frequent attacks of redness, or hurt during study, or who is occasionally affected by nausea during his school work, or who during the reading lesson misses individual letters or miscalls words, are too often told that there is no evidence of a need for glasses, that the eyes are practically normal, and that no such error of refraction exists as would justify inflicting glasses upon a young and active child. Or, after a reasonably careful examination under cycloplegia, much too frequently the mistake is made of prescribing less than the full correction. Whatever difficulty may be experienced in persuading adult patients to wear the full correction found under cycloplegia, the great majority of children, provided reasonable parental willingness to cooperate exists, display little real difficulty in becoming accustomed to the full correction as determined by deducting plus one-fourth diopter from the cycloplegic finding at the trial case (to allow for the distance at which the test is made). There is absolutely no ground for supposing that any eye is damaged or weakened by having its accommodative effort for various distances reduced to the normal amount required of a truly emmetropic eye.

It is not argued here that most children need glasses. But many more would be benefited by proper glasses than are discovered by visual tests in the public schools. In some cases the need for wearing glasses may be of relatively short duration, because the physical condition makes a refractive error more noticeable now than it will be later, under more favorable conditions of general health. In many other cases the need will prove permanent, although the prescription may have to be revised every year or two. The amount of ametropia may be very moderate and yet important.

Take the case of a schoolboy of twelve years, who, having obtained glasses two years earlier on account of blepharitis and photophobia, has lately complained that he cannot go for an automobile ride without becoming nauseated and even vomiting; and who also states that he feels better with his eyes closed. His refractive error has always been what some people would consider too insignificant to require attention, and he now shows only a moderate change in the amount of his hyperopic and astigmatic error. (His previous glasses were right eye +0.12 sphere +0.50 cylinder axis 10 degrees, left eye +0.12 sphere +0.50 cylinder axis 175 degrees, and until recently these were worn constantly with comfort. Under cycloplegia he now accepts at the five-meter range right eye +0.12 +0.62 cylinder axis 10 degrees, left eye +0.12 sphere +0.62 cylinder axis 175 degrees.) He is given for constant use (after deducting 0.25 sphere to allow for the range at which the test was made) right eye —0.12 sphere +0.62 cylinder axis 10 degrees, left eye —0.12 sphere +0.62 cylinder axis 175 degrees. Three weeks later his mother reports that the boy was entirely relieved by his new glasses, and that he has done a lot of automobile riding without inconvenience. The patient is a tall, rather well built boy of pale complexion, a keen student, and rather moderately interested in outdoor sports.

This is a somewhat extreme example, in a delicate, rapidly growing boy who is apparently tending from hyperopia toward myopia, by way of mixed astigmatism. In this case it would have been easy to declare at the preliminary examination that the change of refraction was not enough to account for the symptoms. Yet, as the outcome clearly demonstrated, such a statement would have been hasty and erroneous. In childhood the question of prescribing glasses must often be considered with just as much deliberation and just as careful technique, as well as with just as much willingness to give the patient the benefit of the doubt by prescribing the proper correction, as in the adult.

Encourage immunization against diphtheria and smallpox in the pre-school child.

Take this journal home to your wife.

CONGENITAL ABSENCE OF BOTH CLAVICLES AND MALFORMATION OF THE CRANIUM (CLEIDO-CRANIAL DYSOSTOSIS)*

W. W. BARBER, M.D., and L. D. BUCHANAN, M.D.
DENVER

Congenital defects of the clavicle occur and are usually associated with imperfect ossification of the cranial bones. This is an independent disease, hereditary or familial in nature, and undoubtedly rare in occurrence. Its effects are so striking as to lead one to place on record any instance that may occur. From the literature available to us, there are in all 108 cases from different countries described.

Report of a Case

Our patient is a white boy of English descent, ten years of age, who came to the out-patient department because of nervousness. His mother was the informant for the history obtained. She states that her own fontanelle did not close or even become firm until nineteen years of age and that since she can remember she has been able to touch her shoulders under her chin with the least possible effort. As a child she amused her playmates with contortions of her arms. She is now without teeth but claims she had forty-two permanent teeth. They were very slow in erupting and in being shed, the first deciduous tooth being lost when she was fifteen years of age. Since their eruption and until her last tooth was extracted, she was never free from dental trouble. The teeth were of odd sizes and shapes, readily became carious, appeared in the gums in groups and at the most unnatural angles. Many were impacted. Not one tooth met its fellow above or below by proper occlusion and there was a pronounced over-hanging of the lower jaw—all of which made mastication difficult. The mother volunteered the information that, besides herself and son, she has a daughter and an uncle presenting malformations identical with her own. She also knew of three other relatives whose fontanelles did not completely close until after puberty. One of the mother's children was born with the fontanelle closed; it lived only twenty-four hours. The mother permitted us to examine her chest and demonstrated the remarkable mobility of her shoulder girdle but refused to be x-rayed. Her chief concern was whether her son would suffer the same dental torture she had experienced and if the peculiarities of his dentition were responsible for his nervousness.

The personal history of our patient revealed that he was the seventh of eight children, that he was of average weight at birth, had a large head, was breast fed, and has never had any serious illness, accident or operation. He has had several attacks of tonsillitis and nervous upsets and has always had a poor appetite.

His physical examination shows that he is forty-seven inches tall and his weight is forty-nine pounds. He is small of stature and underweight. These are about the values of a normal healthy boy of seven years of age; in other words he shows mild dwarfism. He stands erect with his head well back and his prominent chin well forward. Mentally he is bright and physically active. There are no marked postural deformities. Upon inspection the most notable feature is the peculiar architecture of his skull. The square head, broad straight forehead, prominent bosses and flattened vertex are not incompatible in appearance to early rickets. The head shows on the vertex, six prominent bosses arranged in three pairs, one behind the other, corresponding to the frontal, parietal, and occipital bones. The three bosses on the one side are separated from those on the opposite side by a broad median furrow, which is deepest in front and gradually becomes shallower as it extends backwards, while each symmetrical pair is separated from the other by a transverse furrow, one of which corresponds to the coronary and

*From the Department of Pediatrics, University of Colorado School of Medicine and Hospitals. Dr. Barber is in possession of an extensive bibliography upon this subject and will be pleased to supply it on request.

one to the lambdoidal suture. The anterior depression is the most marked. The top of the head resembles a hot cross bun which occasionally is seen in congenital syphilis. There is an evident disproportion between the cerebral and facial skull. One might be deceived by the appearance of hydrocephalus or rickets, but other evidences of these diseases are lacking. The face seems small because of the increased lateral diameter of the skull and the face appears to be pushed backward toward the occiput. The small nasal bones, poorly developed zygomata, large orbital spaces and undersized malar eminences lend the facial expression of a brilliant college professor who is underfed and overworked. The underslung prognathous jaw adds to this academic appearance and apparent maturity.

All parts of the cranium seem to participate in its deformity. There is tremendous delay in the ossification of the fontanelles resulting in retarded suture formation. This has caused apertures and depressions to remain in his cranial vault which can be both felt and seen, and depicted by x-ray. The superior maxilla is seated very low and the accessory cavities of his small narrow nose are shallow and in some instances seem practically absent. His palate is very high and narrow. The superior maxilla seems stunted and V-shaped, definitely restricting available space for the normal eruption of his teeth.

In common with every case reported, this patient shows a high-grade disturbance to development of the teeth in the form of retarded breaking through the gums, faulty implantation, or defective coating with enamel. At present he has no permanent teeth and has shed the two lower central incisors. The pre-molars are peg-shaped and closely resemble canine teeth in contour. Particularly in the upper jaw the teeth are bunched, impacted, irregularly shaped, and penetrate the gums at various unnatural angles. With the jaws tightly closed and his teeth in normal biting position the lower jaw protrudes so far that the index finger can readily be inserted into his mouth.

His chest is flattened in front and rounded behind and the shoulders slope downward like those of a woman and point a little forward and inward as he stands in repose. The muscles about the shoulder girdle show very few abnormalities except those having their origin or insertion in the clavicle.

When the clavicle is absent in whole or in part, the normal site of muscular attachment is altered and they may secure themselves to a fibrous band or ligamentous structure which replaces the clavicle. The clavicular end of the trapezius on either side, having no outer end of the clavicle for its insertion, shows considerable failure of development in this region. The same is true of the clavicular head of the pectoralis major. The subclavius muscle is absent entirely. The sterno-cleido-mastoid is well developed, but its lower end is attached entirely to the upper outer border of the sternum. The subclavian artery can be felt pulsating very easily. The first rib is easily palpable. The shoulders seem to fall together a little and the scapulae are projected outward, leaving a hollow between them and the spine accentuating the appearance of his narrow-chestedness. The acromion process on either side is free and the head of the humerus seems subcutaneous. The degree of mobility of the scapulae is greatly increased. By pushing the arm backward and lifting upward, the scapula comes away from the chest wall as though it were loose underneath the skin. The scapular bone itself is small and deviates from normal in the development of its processes and fossae. The vertebral borders of the scapulae, when the arms are in repose at the sides, slope medially and downward forming a "V." When the arms are elevated close to the sides of the head, the vertebral borders assume a position almost at right angles to the spine. The shoulder girdle examined from behind appears pear-shaped. The shoulders can voluntarily be approximated until they touch beneath the chin. Arm movements are unimpaired in spite of the abnormalities about the shoulder girdle. All ordinary movements are uninterfered with and there is seldom any complaint even in the performance of strenuous play or work. Congenital total deficiency of both clavicles is very



Fig. 1. Shows macrocephaly, patent anterior fontanelle, unusual straight angle at base of skull, smallness of facial bones with backward displacement, supernumerary teeth, and eight cervical vertebrae.

rare. Fibrous, cartilaginous, or bony fragments, particularly of the sternal ends, are nearly always present. One of the bones may be entirely absent. Hereditary, "clavicular dystrophy varies in degree from narrowing of the acromial end to complete absence of the entire bone or there may be failure of union between the inner and outer thirds of the bone."

It is remarkable how little obvious deformity the malformation produces. The arms and legs are a little small, but fairly well shaped. The thumbs and great toes are short and stubby. All the joints seem good. This case as in all others reported, "Absence of the clavicles and particularly the conformation of the head, seem to go together."



Fig. 2. Shows multiple ossification centers, prognathous jaw, poorly developed nasal bones, apparent recession of frontal lobe, and contracted upper jaw.



Fig. 3. Apparent absence of both clavicles, rudimentary acromion, and absence of coracoid process.

X-Ray Report

Cranial and facial bones: Marked macrocephaly, especially pronounced over occipital region. Fronto-occipital diameter, 22 cm., biparietal diameter, 19 cm. Evidence of numerous wormian bones (multiple ossification centers) in occipito-parietal region (lambdoid suture). Patency of anterior fontanelle. Recession of frontal lobe. Sella

cursica, small. Absence of frontal sinuses. Occipital angle, increased; cranial base forming unusually straight line. Disproportion and receding angle of facial bones. Underdevelopment of nasal bones. Supernumerary teeth.

Scapula: Rudimentary acromion. Absence of coracoid process. Widening of joint-space in glenoid fossa.

Clavicles: Rudimentary development; acrominal ends, missing; faint visualization, apparently due to retarded ossification.

Ribs: Some sloping noted.

Spine: Spina bifida, involving third to eighth cervical vertebrae, first to twelfth dorsal vertebrae and fifth and sixth lumbar vertebrae. Supernumerary (8) cervical and (6) lumbar vertebrae.

Pelvis: "Heavy" appearance of pelvic bones. Fusion and shortness of sacrum. Coccyx, not visualized. Lack of fusion in acetabula. Wide separation of symphysis.

Hands: Underdevelopment of carpals (5) considering age. Distal phalanges of centers of middle phalanx, fifth fingers are nibbed off. Shortness of thumbs, especially of metacarpals.

Feet: Roughening of posterior aspects of ossa calcis. Shortness and broadening of first metatarsals.

In practically all bones of extremities, the epiphyseal lines appear more marked than usual, and an apparent diminution of bone density is noted.

Conclusions: Cleido-cranial-dysostosis.

Etiology

Etiology is purely theoretical. According to Hultkrantz "the cause of this malformation lies in the primary change in the germ plasma." The hereditary factor is stressed by all and, as in our case, several members of one generation are affected. This is conclusively shown by a consideration of the eighty odd cases reported up to 1916; of these, thirty-one of the affected individuals occurred in eight families. The immediate ancestors and descendants of many of the patients have not been examined or at least are not reported. Had they been there is little doubt that the hereditary nature would be more striking. The transmission evidently is possible from either parent. We were unable to find any instance of transmission to the third generation recorded. Both sexes are about equally affected.

The only mechanical explanation found in the literature to account for the congenital defects which these patients show is given by Professor Murk Jansen of Leyden, Holland. He states that all cases examined by him presenting the disease under discussion have "shortening of the toes and bilateral flattening of the chest." These phenomena as well as the angular curve in the base of the skull and displacement of the face backward and the failure of the clavicles to develop properly are the results of growth stunting.

"Both the mechanical malformations and the symptoms of growth stunting may be explained by assuming that the fetus has been infolded in the long axis and its transverse axis in the eighth week of fetal life. Direct amnion pressure forces the forehead of the fetus against the chest wall, and the shoulders are pushed forward. The frontal bones, as well as the other bones of the cranial roof, are at the same time changing their sclerobla stematous consistency into bone and thus developing rapidly. The law of the vulnerability of fast-growing cell groups explains why these very parts are affected by retardation of growth. Enhanced indirect or hydrostatic pressure compresses the middle and terminal phalanges of the toes, which are the only skeletal parts that are at that moment growing rapidly and changing to cartilage.

"Compression of the flexible parts means arrest of blood supply and famine to them. Famine to growing parts means death if continued sufficiently long. It means dwarfing of the parts if it is less intense. Hence arrest of blood supply may produce dwarf growth or death. The dwarf growth is proportional to the rapidity of the growth. This is the law of the vulnerability of fast-growing cell groups."

Through the application of these principals, Jansen comes to the conclusion that smallness of the amnion sac with resulting pressure in various stages of development of



Photographs illustrating peculiar facies, frontal bossing, abnormal dentition, short thick thumbs, and unusual mobility of the shoulder girdles.

second or third week; cyclopia in the third or fourth week; achondroplasia in the fifth or sixth week; "mongoloid" idiocy in the seventh week; dysostosis cleido-cranialis in the eighth week; and congenital dislocation of the hip-joint and club foot after the eighth week. His explanation would account for the mild dwarfism of the entire body which is a constant finding in all patients with this malady.

To further substantiate the theory of arrested development produced in a mechanical way, probably through interference with nutrition of the embryo, it has been found that 96 per cent of embryos in tubal pregnancies show some abnormal skeletal development.

Symptomatology

The symptomatology of this condition is practically nil. Seldom does the patient come because of deformity, pain, or discomfort in the shoulder girdle. Absence of the clavicle permits certain movements not possible by normal persons. Occasionally when the shoulders are brought together forcibly one or both of the clavicular fragments may cause pressure on the vessels or nerves in the region of the shoulder giving rise to pain or tingling in the arm or hand and temporary circulatory disturbances. Occasionally the buckling of the inner and outer thirds of the bone, when only the middle third is lacking, causes a bulging in the nipple line resembling an ununited fracture. The positions of the bone fragments are identical with those of true fracture.

Pathology

The pathology is that of faulty bone development in all bones arising wholly or in part in membrane. All parts of the cranium participate in the deformity. There are numerous centers of ossification which produce the wormian bones which are so beautifully shown in the x-rays. The individual bones are smaller than normal, particularly the nasal and lachrymals which are absent entirely or only slightly developed. Pelvic bones are not infrequently poorly developed, and the spinal vertebrae nearly always shows some anomoly. Our patient shows spina bifida, supernumerary vertebra, and no coccyx.

The course of the disease seems to have spent itself before middle life is reached. The large fontanelles are filled in with bone. The teeth have been extracted or straightened, or replaced by artificial dentures. Other bones of the skeleton that may have developed poorly become ossified and the patient passes a fairly normal life unaware of any serious defects.

Treatment

We have found no record of any form of treatment recommended in the literature. This does not mean that modern therapeutics can not be employed without benefit. Extraction of carious teeth and orthodontia can do much to develop the small "V" shaped upper jaw and permit those teeth which have erupted to be used in normal mastication. We feel that large doses of vitamin "D," together with calcium and the exposure of the skin to the actinic rays of the sun or ultra-violet light, will do much to hasten the calcification in those bones which are defective.

Summary

This paper attempts to give the available information on a rare congenital familial disorder in which there is faulty development of the osseous system with mild dwarfism. The cranial, clavicular, spinal, and digital bones are chiefly involved.

The chief characteristics as here presented are: absence of the clavicles, cranial malformation, disorders of dentition, and heredity.

REFERENCES

1. Marie and Sainton: Sociéte Mèdecine des Hôpital, 1897.
2. Krabbe, Knud H.: Journal of Nervous and Mental Diseases: Vol. 61, page 18, 1925.
3. Fitzwilliam, Duncan C. L.: Hereditary Cranocleido Dysostosis; Lancet; Vol. 2; P. 1466; 1910.
4. Pillsbury: Congenital Absence of the Clavicles: Am. Journ. of Roentgenology, Vol. 18; page 322; 1927.
5. Jensen, Prof. Murk (Leyden, Holland): Journal of Orthopedic Surgery: Vol 3; page 468; 1921.
6. Thomson, John: Clinical Study and Treatment of Sick Children; 4th Edition; page 746; Oliver and Boyd.
7. Carpenter, George: Lancet; Vol. 1; page 13; Jan. 7, 1899.
8. Hultkrantz, J. W.: Uber Dysostosis Cleidocranialis, Kongenitale kombinierte Schadelund Schlusselbeinanomalien Ztsch. of Morphol. U Anthrop., XI; 385, 1908. An excellent detailed account of the anomaly, emphasizing characteristics which may be present.

NERVOUS INDIGESTION*

HARRY GAUSS, M. D.
DENVER

By nervous indigestion is understood a functional disturbance of the gastrointestinal tract, caused by stress, strain, or other unfavorable reactions to environment, characterized physiologically by hyperacidity, hypersecretion, hypertonicity, hyperperistalsis, spasticity, reverse peristalsis, and clinically by a variety of symptoms including abdominal consciousness, abdominal pain, epigastric distress, constipation, flatulence, nausea, vomiting, diarrhea, disturbances in the appetite and diminished tolerance for food.

Certain predisposing and exciting factors are known to play a part in the causation of this disease. Among the predisposing factors which have been mentioned are: An unstable nervous system, a submerged fear complex acquired in early life, an inherited spasmophilic tendency. Among the exciting factors are the stress and strain of modern life, unfavorable reactions to one's environment such as financial uncertainties, domestic disturbance, social upheavals, loss of prestige, impending calamities (either real or fancied). In fact, any of a hundred causes that threaten to disturb the peace and equanimity of a previously well-ordered life or which otherwise threatens to impede the achievement of a desired goal may be the instigating factor. It becomes evident that emotion plays a cardinal role in the causation of nervous indigestion. That emotion can and does influence the digestive apparatus is a matter of common observation. Instances are common where a person has lost his appetite after a fit of anger, where fright has caused diarrhea or constipation, where an attack of vomiting has followed an emotional debauch, etc.

That there is a psychic force which influences the gastrointestinal tract is not only a matter of common observation, but is supported by direct laboratory tests. Cannon was one of the first to discuss this force which is designated as psychic tonus. In 1911, he discussed the existence of a psychic tonus which influences the movements of the gastrointestinal tract. In support of the existence of this psychic tonus, Alvarez describes a laboratory observation made under controlled conditions in man. He states that some years ago he was studying the intestinal movements in a man who had an opening through the abdominal wall into the first portion of the jejunum, through which a small rubber balloon connected by rubber tubing to a tambour had been passed into the bowel, and in this manner he was able to record the intestinal movements that took place. During the course of the record taking there was a sudden increase in the tonus of the intestinal movements with a corresponding increase in the amplitude of the rhythmic contractions without any apparent cause for the sudden change from the previous rhythm. Directly he heard the steam table come rumbling down the hall bringing the patient's dinner. The patient was hungry and had heard it first. In this instance, psychic impressions coming in through the olfactory and possibly auditory pathways had caused an accentuation of the tonus of the intestine. This is a concrete instance of the so-called psychic tonus.

That gastric juice can be caused to flow by psychic stimuli has long been known to physiologists. Pavlov was the first to show experimentally that the first stimulus to the secretion of gastric juice is nervous in origin and is dependent upon the gratification of the appetite and the pleasure or anticipation of taking food. By inference the converse of this would also hold true, namely, that the psychic stimuli can cause an inhibition of the gastric juices. This view is supported by clinical observations. Cannon describes an instance in which the first examination of the gastric contents of a woman showed an almost total absence of the gastric juice. Inquiry into the case brought out the fact that on the night preceding the making of the first test she had been kept awake and badly

*From the Department of Medicine, University of Colorado. Read before the Sixty-first Annual Session of the Colorado State Medical Society, Colorado Springs, Sept. 16, 1931.

upset by the conduct of her husband who had chosen the occasion for an alcoholic debauch.

Lebensohn has shown experimentally that "reflexes occur from the eye to the stomach and from the stomach to the eye . . . Using a stomach balloon connected with a water manometer, tracings were made to demonstrate the effect of gastric motility of astigmatic errors and muscular imbalances artificially produced by wearing of cylinders and prisms respectively. Errors of refraction or of muscular balance were definitely shown to exert a repressive effect on the motor functions of the stomach, while upon removal of such asthenopic irritants, there was a release from inhibition.

Individuals, of course, vary greatly in their responses of their viscera to external stimuli. Some individuals have highly sensitive gastrointestinal mechanisms which respond readily to external stimuli; others possess more stolid and less responsive systems.

Dawson expresses the opinion that there is a group of persons whose abdomens are overly sensitive to nerve impressions and that in these people such reactions as fatigue, fear, anxiety, or intensive application in any direction manifests itself in their hollow viscera. In some of them, the stomach may become irritable and hypertonic and may secrete an excess of acid; such patients develop the symptoms of gastric irritation. In others the distal colon becomes irritable and hypertonic with a disturbance of its functions, and they develop the symptoms of spastic colon. These patients are sometimes said to have "barometric abdomens," that is, their abdomens indicate the state of their emotional reactions. Oddly enough, the male "barometric abdomen" commonly reacts by the gastric irritation syndrome, while the female "barometric abdomen" reacts by the spastic colon syndrome.

When the reason is sought for the extreme irritability of the gastrointestinal tract of one person against the seemingly sublime indifference of another person to the apparently same stimuli, we reach a phase of the discussion where much information is lacking. Thus far there is no established explanation for this variation in the responses of the gastrointestinal tracts of persons. The same lack of information, however, is encountered in other fields of medicine. Pain unfortunately cannot be measured by any known laboratory procedure. It is purely a psychic phenomenon. Likewise the degrees of pain cannot be measured, and likewise it is a common observation that people react differently to the same pain-producing agencies. Why some person should react violently to a given pain-producing stimulus while another is apparently indifferent to the same agency is an observation that is common enough, but for which there is no satisfactory explanation other than that it exists.

Apparently there are differences in individual sensitiveness to pain. For the sake of convenience, we may divide persons according to their sensitiveness to pain into three groups—the hypersensitive, the average, and the hyposensitive. Between the hypersensitive and hyposensitive there is a marked difference. Consider, for instance, the marked difference of the mental reactions to pain of the prize fighter or football player taking terrific punishment with hardly a whimper while one of the spectators may yell with pain if his corn happens to be stepped upon. In the practice of medicine, one is familiar with the patient who presents himself apologetically because he has lost some weight, and examination shows a large cancer gnawing at his vitals; another patient has an elongated history of aches and pains, trials and tribulations such that at the time of the taking of the history one wonders how he can possibly bear up under his burdens, while subsequent examination fails to show any organic basis for the complaint. The probable answer to this tremendous difference of response to pain is that the nervous patient does suffer more intensely with his complaint than the stable individual does with his organic disease.

It is with the nervous person who is hypersensitive to pain that we are concerned. He or she is the patient who develops the "barometric abdomen" described by Dawson. They are the candidates for nervous indigestion.

The hypersensitive patient has symptoms for which no organic basis can be found. The hypersensitive patient magnifies his symptoms and misfortunes seemingly out of all proportion to the organic basis.

The symptoms that the patient with nervous indigestion complains of are varied and at times bizarre. They include headaches, disturbances in the appetite, abdominal consciousness, abdominal pain, epigastric pain, a sense of emptiness in the abdomen, a sense of fullness after eating, any of the manifestations of gastric irritation, constipation, flatulence, any of the manifestations of spastic colon, diarrhea, vomiting, loss of strength, profound fatigue, loss of weight, tremblings or paresthesias of the extremities, insomnia, drowsiness, etc. A typical case illustrating some of the symptoms of nervous indigestion is shown by the history of the following patient. Mrs. P. G. complained of a little bit of everything; perhaps it was ulcer of the stomach, but she was not sure. Because of the possibility of ulcer, she had gone on a diet of goat's milk, oranges, and olive oil as advised by a neighbor. She felt like vomiting at times. At times she had a sharp pain in the epigastrium. However, most of the time she had a disagreeable sensation in the upper abdomen consisting of an empty sinking feeling which alternated with a sensation of trembling. Foods did not agree with her, so at times she restricted the diet to straight milk which did not distress her, but which caused her to be quite constipated. These symptoms existed for three months. Further questioning brought out the fact that her husband had been out of work for three months. Careful physical and laboratory examination showed hypertonicity of the gastro-intestinal tract and very little else. She was placed upon a bland diet and bromide medication. She returned a week later to state that she felt very much better, her nervousness was gone, food agreed with her, the vomiting was forgotten, and she was no longer conscious of her abdomen. She admitted on questioning that her husband had gone back to work shortly after her office examination. She left the office assuring the examiner that she was cured. However, she returned six months later with a complete return of all of her old symptoms—nausea, abdominal consciousness, the empty sinking feeling in the abdomen, paresthesia of the hands, etc., and incidentally her husband was out of work again. She was again placed on the bland diet and bromides; again the treatment became effective when her husband returned to work.

In examining patients of this type, it is not unusual to find some evidence of disturbed function of the gastrointestinal tract, as hypertonicity, hyperacidity, hyperperistalsis, and spasticity of the bowel. Quite likely the disturbed function of the gastrointestinal tract is the result of the emotional conflict of the patient with his or her environment, and the disturbed function in turn gives rise to the violent symptoms of which the patient complains. The symptoms then add to the patient's mental distress and thus is produced a vicious circle. There is no question but what these patients suffer intensely; even though there is little organic or demonstrable basis for their symptoms. They are the patients who are hypersensitive to pain.

Another type of nervous indigestion is shown by the following: Mrs. G. G. complained of pain all over the abdomen and all through the abdomen, both in her stomach and in the intestines; the pain was irregular in appearance and irregular in duration; it came on at any time and lasted a variable period from hours to days. She was troubled with gas and excessive flatulence. She was nauseated at times and vomited occasionally. Her gall bladder and appendix had been removed. She had headaches, frontal in location, very violent in character, and so severe that she required sedatives for these. Her hands trembled at times, and they felt numb and cold. Careful examination of this patient showed a spastic colon and bilateral otosclerosis. The otosclerosis with its marked diminution in hearing had not been discussed at all by the patient, yet further questioning brought out the fact that all of the abdominal symptoms had developed since she had been told of the presence of the otosclerosis and informed of its unfavorable prognosis. The

patient's real problem was the loss of hearing which she considered a terrible affliction and over which she brooded until she developed a marked degree of psychoneurosis. Then the gastrointestinal symptoms developed as a result of the mental depression. On this subject Jelliffe and White state that "many of the gastrointestinal disturbances rather than being the causes of mental disease, are effects." This patient complained bitterly over her gastrointestinal symptoms, yet they were the result of her psychoneurosis rather than its cause. The usual treatment of rest, bland diet, and sedatives proved of little value until she was encouraged to take up lip reading. After she manifested some proficiency, the gastrointestinal symptoms subsided considerably.

Another type of symptomatology encountered in nervous indigestion is that which pivots around multiple surgical operations in the abdomen. Mrs. L. B. states that she has never been very strong. As a young girl she had inflammation of the bowels. At the age of twenty-nine, she was operated for appendicitis, at the age of thirty, she was operated for ulcers of the stomach, at thirty-five she was operated for adhesions. At the age of thirty-seven, she was again operated for adhesions, and at the age of forty-three, she was again laporatomized for adhesions. At the time of the examination she complained of food intolerance, constipation, headache, flatulence, and pain under the left hypochondrium. She was nauseated and vomited at will, which she did to relieve her distress. Her whole interest in life centered in her abdomen, with the abdominal operations as the center of attraction. Examination showed the presence of mucous colitis, abdominal adhesions, and psychoneurosis.

Another type of patient in this group is the one in whom the process of making a decision in any matter seems to call forth a tremendous mental effort and exhausts the patient. These patients wear themselves out in the process of making a decision in seemingly trivial affairs; associated with these periods of exhaustion the patient has gastrointestinal symptoms. Mrs. M. E. complained of her stomach. Her tubes and appendix had been removed; she had shooting pains in the arms; the hands and fingers got numb; headaches troubled her. She had gas on the stomach; she became frightened easily; she was also constipated. Examination showed a well nourished woman in whom there was no evidence of organic disease. After a few visits, the true nature of this patient's distress became apparent when she called upon the physician to help her decide such factors as whether she was strong enough to hold a reception and if not why not, whether she was strong enough to make a short trip, and whether she should cancel the invitations to her party. It seems that the process of making a decision, in what we consider trivial details of life, called forth in her a tremendous mental effort and exhausted her. In this connection, it has been pointed out that for every insane person confined to a sanatorium there are a number of borderline persons at large who are real or potential psychopaths. These persons are maladjusted to their environment; they are hypersensitive to pain; they are badly mated, overly religious, or of insane ancestry. They become moody, melancholic, dyspeptic or introspective, and it is imperative to recognize that they are borderline psychopaths and their aches and pains are merely focal points of their bizarre minds.

The diagnosis of nervous indigestion as a rule is not difficult to make. Usually the patient gives an elongated history of aches and pains referable to the gastrointestinal tract besides numerous other trials and tribulations. Physical and laboratory examination shows very little or no organic disease, although functional disturbances of the gastrointestinal tract may be found. The symptoms are out of all proportion to the signs. When organic disease is present, it does not seem to explain the extent of the symptomatology. Differential diagnosis is to be made from peptic ulcer, spastic colon, redundant colon, intestinal parasites, ulcerative colitis, cholecystitis, hyperthyroidism, and cardiorenal disease.

In the management of these patients it is

imperative that the true nature of their ailment be recognized. It is folly, as Alvarez points out, to attempt "to 'cure' them by tonsillectomy, extraction of teeth, or the giving of medicine." Having established a diagnosis, it is desirable that the physician have a positive program for his patient—for nervous patients dislike signs of weakness on part of their physicians. The physician must possess a kindly interest in his patient, else he fails to understand them, and failing to understand them, he cannot hold their confidence. The patient should be told as much of the truth as possible without burdening him with further afflictions. Environmental disturbing elements are to be corrected or adjusted as far as possible. At times this calls for drastic action; unfortunately at other times, it is not possible at all. The man or woman, for instance, who is stewing and fretting over a suspected marital infelicity, cannot be cured of nervous indigestion until this matter is concluded. Such a person must either dispel such a suspicion, seek legal relief, or reconcile himself to it. The person who is worrying over an unsuccessful love affair, and figuratively "eating away his vitals," is a difficult problem. Little can be accomplished until such an affair is either consummated successfully or accepted as a failure and forgotten.

Rest and relaxation are important in the management of nervous indigestion. These are important and at the same time the most difficult to enforce properly. To put such a patient to bed may give him physical rest, but not necessarily mental rest, for many of them still continue to fret and worry over the incidents that have upset them. Sanatorium treatment is perhaps best for them—a prescribed regime of rest, exercise, diet, physiotherapy, and diversion. Sanatorium treatment unfortunately is beyond the means of most patients who need it. Accordingly, relative rest is prescribed within the economic convenience of the patient. A fretful social worker is advised to drop some of her activities for a while, an overworked business man is advised to play golf one or more afternoons a week, a tired working girl is advised to make the most of her opportunities to rest over the week end, and a distracted mother is advised to rest during the hours her children are at school.

The control of the diet is an important factor in the management of nervous indigestion. Whenever possible, a gastric analysis should be made and the diet selected according to the indications of the gastric analysis. In general, most patients with nervous indigestion are found to have an hyperacidity associated with hypertonicity of the gastrointestinal tract; accordingly a smooth bland diet is indicated. Elsewhere we have discussed the details of this diet.

Intestinal lubrication is employed to advantage, it facilitates bowel movements without producing irritation. Two methods of intestinal lubrication are available and both are employed. The first is mineral oil by mouth, the usual dose being one ounce a day; the other is the use of the oil retention enema commonly given upon retiring. The patient is instructed to retain it if possible and can usually do so without difficulty or discomfort.

Medication has a useful place. Two groups of drugs are employed, the general sedatives and the antispasmodics. Among the sedatives, the bromides and the derivatives of barbituric acid are employed. These sedatives are employed to reduce the general irritability of the patient, to depress all the cerebral activities, and to induce sleep. It is imperative that the nervous patient have a reasonable night's sleep, and since nervous patients have often lost the natural ability to relax, they must be assisted to relax and sleep with the aid of general sedatives. The antispasmodics are employed to reduce the hypertonicity of the gastrointestinal tract. Belladonna and its derivatives are the drugs of choice.

Physiotherapy is employed to advantage. Local applications of heat to the abdomen have a soothing effect and often help divert attention from the symptoms. Ultraviolet radiation seems to improve the general metabolism and is useful in building up the anemic patient.

The prognosis in nervous indigestion is always guarded. Due to the underlying neurosis, recurrences are apt to occur.

DISCUSSION

O. E. Benell, Greeley: In discussing the foregoing paper, which has been very interesting, instructive, and thorough in its scope, there is little for me to add except to stress a few points of major significance and to add a few of my own observations.

With the exception of the few who come to us for periodical physical examination, our patients consult us for the relief of suffering, either real or fancied. It is incumbent upon us, therefore, in the majority of cases to be sympathetic with them, but at the same time to adopt an attitude of understanding in order to inspire confidence. On the whole there is nothing which inspires confidence, shows sympathy, and tends to a better understanding of the case than a complete history and thorough physical examination.

That psychic states markedly influence bodily functions is well known—witness the hysterical fit during a menstrual period, or the fainting at sight of blood, and many other instances which could be mentioned. Digestion is influenced very much by the psychic state. No one can enjoy a meal if nervous and irritable and in a continual state of nervous irritability. Speaking in a general way, this will certainly not lead to a gain in weight. The fat jolly epicurean certainly enjoys his meals more than the thin neurasthenic We have all doubtless had demonstrated to our entire satisfaction the nervous diarrhea or polyuria just previous to taking an important examination in school. The athlete, perfectly trained and in the best of health, experiences the same thing just before an important athletic event. The explanation of the diarrhea probably lies in stimulation of the vagal centers, which must be psychic. The polyuria has been variously accounted for—possibly similarly, and also possibly due to a glycosuria caused by a hypersecretion of adrenalin, which in turn is psychic; so it amounts to the same thing.

Oftentimes fright may induce a fit of vomiting, or if not that, an "all gone" feeling at the pit of the stomach. Possibly it is within the experience of most of us that creating, by means of suitable lenses, a gross ocular refractive error will cause nausea. Not so long ago I had a patient who could not keep anything on his stomach, apparently had epileptiform seizures, and was very nervous and losing weight. He complained also of a bronchitis and pain in the chest and more or less headache of a neuralgic character. Physical examination was entirely negative until it came to looking into the auditory canals. About a teaspoonful of inspissated wax was removed from each canal. I thought that would be enough for one time and let him go, with the result that all symptoms cleared up.

We know, of course, of the neurogenous secretion of gastric juice, and it has been mentioned. Bickel, who produced a gastric fistula in a rather irritable dog and noticed the cessation of gastric secretion upon bringing into the room a cat which made the dog very angry.

We have also had experience with the disease known as aerophagia, which perhaps may have an organic background, but is in the main purely functional and appears in those of a neurotic temperament.

We must keep in mind the existence of a type of indigestion which is nervous or functional, but must try by all available means to rule out other types first so that we shall not be doing our patient an injustice. Then, knowing that the disease is not organic, we must proceed properly to deal with it from a psychological standpoint.

E. H. Steinhardt, Pueblo: I have had a little experience and have noticed that not only do psychic reactions produce physiological illusions, but occasionally go on and produce organic changes. One should beware in making a diagnosis of hysteria or depressive reactions, as the condition may go on to a true organic change, such as ulcer of the stomach.

Various trying situations, when affecting a neurotic individual, sometimes bring on a depression or hysterical reaction, and with indiscretion in diet, or no diet at all, or perhaps one meal a day, a pathological change occurs. I have seen two such individuals finally reach the operating table. Ulcer of the stomach was found at the operations.

Leo Tepley, Denver: I want to call your attention to a practical point about these patients. Before they come to Dr. Gauss, most of them come to see the neurologist, and they usually have been to other physicians previously. The thing that is most impressive about the hyperneurotic, or person with nervous indigestion, is that he is a man that really suffers. He is hypersensitive; in other words, he has somatic sensations. The ordinary person does not pay attention to the result of natural stimuli any more than one of us does not feel the touch of a very slight object. Never tell the patient, unless you are absolutely sure, that his neurosis is due to a complex of some kind, or financial disaster, or a mother-in-law complex. In my experience I have only had two cases where I finally told them that "Your trouble is mother-in-law," or "finances." One of them gave me a trip to California; this grateful patient promised it because I cured him. I saved his life; later, in a little over-enthusiasm, I told him what his real trouble was, and from that day on he was a sick man. He tells me, "Dr. Tepley, you don't mean to tell me that my trouble is that my wife does not love me, and my wife loves her sister more than she does me, that this is the cause of my sickness?" It is very inadvisable, because the patient will never understand his own psychic mechanism, how he is being attacked, as we do. We always have a person who is extremely hypersensitive to your own words. He watches what the doctor says, and if the doctor says he is a sick man—he is not only a sick man, but he is almost dying, and, of course, reacts accordingly.

Dr. Gauss (closing): The point of differential diagnosis was mentioned briefly. Where a nervous indigestion is present, removal of the appendix or teeth does not cure the patient. It is imperative that the true condition be recognized, and it is absolute folly to try to cure these patients with tonsillectomy or with taking out the teeth.

Encourage immunization against diphtheria and smallpox in the pre-school child.

Take this journal home to your wife.

CASE REPORTS

HODGKIN'S DISEASE WITHOUT LYMPHADENOPATHY

THAD P. SEARS, M.D.
and
WILLIAM C. BLACK, M.D.
DENVER

Hodgkin's disease in its classical type is not very rare. It is recognized as an affection of gradual onset with painless enlargement of the lymphatic glands, an irregular fever, and a secondary anemia which terminates in extreme cachexia and death. The spleen is enlarged in the majority of cases. To this constantly recurring and classical triad of symptoms, i. e., lymphadenopathy, fever, and anemia, are added a host of adventitious signs which are as varied as are the structures which may be pressed upon by the enlarging lymph gland elements throughout the body. The intrinsic signs of Hodgkin's disease are also added to by the extrinsic signs characteristic of any profound anemia. If the involvement is only in glands which are too deeply placed to be seen or felt, the disease may then suggest sepsis or primary morbidity in the mediastinum, thorax, or abdominal cavity. Under these conditions, a diagnosis of Hodgkin's disease is rendered difficult.

This difficulty of diagnosis is still more accentuated in that rare type of Hodgkin's disease which is unassociated with any demonstrable lymph gland enlargement whatever. Such was the circumstance in the case which we here report. Beyond establishing the facts of the anemia, fever, and developing cachexia, no adequate cause for the illness could be demonstrated. Even the gross changes seen at the autopsy table failed to show the primary cause of death, and this remained unknown until the microscopic findings established the diagnosis.

The case clinically appeared to be one of sepsis—possibly primary in the heart. And yet careful study failed to localize a septic lesion and the marked cachexia with the extreme leukopenia and repeated negative blood cultures seemed to militate against such a diagnosis. The spleen, though later found to be enlarged, was never palpable. This, we think, was due to its soft character.

Case Report

Miss F. C., aged 25, a clerk. Her chief complaint was of weakness, shortness of breath, pallor, fever, and cough. These symptoms had developed gradually since an attack of diphtheria three years before. Until that time she had never been ill. Examination showed an emaciated girl with marked pallor and a very soft edema of all the subcutaneous areas. She had a frequent teasing cough. The mouth, ears, nasal cavities and sinuses showed no disease (Dr. Beyer). The tonsils had been removed. The dental examination and x-rays were negative. The thyroid was normal. There were no palpable glands in the cervical region. The lungs were negative except for a few moist rales at the bases. The chest x-rays were negative as regards heart, lungs, and mediastinum. The heart rate was ninety and regular. The apex was in normal position. There was a systolic murmur heard at the fourth left interspace near the sternum. The blood pressure was 100 systolic and 60 diastolic. There were no palpable masses or points of tenderness in the abdomen; the spleen was never palpable; the liver was not enlarged. The inguinal glands were not palpable. Pelvic examination, negative. She did not menstruate. The extremities showed a moderate edema as did also the lumbar areas and arms and face. The nervous reflexes and mental state were normal. She was very short of breath even upon slight exertion.

The laboratory findings were as follows (Mugrage and Freshman): Urinalysis, repeatedly negative. Stool examination, negative for parasites and occult blood. The gastric contents after test meal averaged 20 degrees of free hydrochloric acid and total acidity of 50. Sputum tests, negative for tubercle bacilli. The Wassermann tests were negative. The agglutination tests for B. abortus and the typhoid group were negative. Many blood cultures on various media were negative after long incubation. The red

blood cell counts varied from one to three million; the white counts from one to three thousand. Both were at the low level at death. The hemoglobin varied from 20 to 50 per cent. The differential counts averaged as follows: polymorphonuclears 84 per cent, lymphocytes 12 per cent, endothelial cells 4 per cent, eosinophiles 5 per cent. The blood count was 150,000. There were a few nucleated red cells; there was an occasional metamyelocyte. The reticulocyte counts averaged 5 per cent. There were moderate changes in the shape and staining of the red blood cells. The blood chemistry was: nonprotein nitrogen 30 mg., urea nitrogen 15.7 mg., creatinin 1.5 mg., blood sugar 100 mg.

Sodium cacodylate appeared to give one remission lasting six weeks. Her course was gradually downward for eight months. Blood transfusions gave very temporary improvement. During all of the last six months the case displayed an irregular fever which at times reached 105 but averaged 101. It showed a definite tendency toward periodicity with afebrille periods alternating with febrile. The fevers were associated with drenching sweats. Ten grains of acetylsalicylic acid lowered the temperature seven degrees in an hour on several occasions. The afebrile days were unexplained. She died in a state of marked cachexia and air-hunger eight months after the onset of severe symptoms and three years after her first malaise.

Autopsy Report

The autopsy was performed (Dr. Black) fifty-four hours postmortem. The body had been embalmed. Permission to examine the head was not granted. Positive findings only will be mentioned.

The body is rather poorly nourished. The skin is pale. There is moderate edema of the lower extremities. The peritoneal cavity contains approximately 1000 c. c. of clear yellow fluid. (No embalming fluid had been introduced.) The pleural cavities each contain about 1000 c. c. of clear yellow fluid. There are a few fibrous adhesions between the diaphragm and the lower lobes of each lung. The pericardial cavity contains about 40 c. c. of clear yellow fluid. A small amount of thymic tissue, embedded in fat, is present. Several soft white nodular masses of tissue measuring about 0.3 cm. in diameter, which appear to be partially encapsulated, are present in the thymus. Microscopically, in sections of thymus containing the nodular masses mentioned, these are seen to be made up of compact groups of small round cells and larger, pale staining, mononuclear and binuclear cells. The stroma toward the periphery of each mass is a delicate reticulum, which becomes coarser toward the center, where coarse bands of fibrous tissue are present. Scattered through the tissue, but more numerous at the edges of fibrous areas, are many large mononuclear and multinuclear giant cells of the Hodgkin's type. Only a few eosinophilic cells are found. Each mass appears to be partly separated from the surrounding thymus tissue by a thin fibrous capsule. No acid fast organisms are found in sections stained with carbolfuchsin.

The heart is small, very pale, and soft. Upon the anterior cusp of the aortic valve, at the line of closure, is a soft pinkish nodule 0.1 cm. in diameter. The myocardium of the left ventricle measures 1.5 cm. in thickness. It is very pale, and is flabby in consistency. Its cut surface has an indefinitely striped appearance. Microscopically the epicardium appears normal. The myocardium is bloodless and the individual fibers are large and rather widely separated. Nuclei are irregular in shape and brown granules appear as polar accumulations and scattered throughout the fibers. Certain of the fibers stain unevenly, giving the appearance of indistinct vacuolization. The endocardium appears normal. Section through the aortic valve cusp noted grossly, shows a fusiform enlargement of the cusp, due apparently to central connective tissue increase, without endocardial change. The myocardium in this section shows very uneven staining characteristics and appears vacuolated.

The posterior portion of the lower lobe of the right lung is soft, airless, and dark red in color.

At the upper end of the esophagus there are several irregularly oval depressions in the mucosa. In sections these depressions

are seen to be areas of superficial ulceration.

Cervical, mediastinal, and retroperitoneal lymph nodes are not enlarged.

The spleen is approximately three times its normal size and weight. It is dark slate blue. The capsule is smooth and tense. The cut surface bulges slightly. It is dark red with numerous darker, purplish, irregularly shaped areas scattered throughout. The substance is very friable. Sections of the spleen show the presence of many large and small irregularly shaped areas of necrosis. The malpighian corpuscles are represented by a few small accumulations of lymphocytes surrounding small vessels. The splenic pulp is filled with large round and spindle shaped mononuclear cells with vesicular nuclei, and the intercellular spaces contain a faintly pink staining hyalin substance. At the edges of the necrotic areas there are a few Hodgkin's type giant cells. There is no fibrosis in the spleen. Carbolfuchsin stained sections show no acid fast organisms.

Bone marrow of the anterior rib ends appears normal grossly, but in microscopic sections it is seen to contain areas of necrosis. Some of these areas are surrounded by a zone in which large round, oval, or spindle-shaped mononuclear and binuclear cells predominate. Plasma cells and lymphocytes are also present. No eosinophils are seen. There is a delicate fibrous tissue reticulum which becomes somewhat more dense toward the necrotic central part. Lying along these strands of connective tissue and near the necrotic areas are numerous multinucleated giant cells. These cells greatly resemble the megakaryocytes present elsewhere in the marrow, but their nuclei stain somewhat more deeply. The lesions are not confluent but lie rather close together. The marrow between the lesions consists of a fibrous stroma which appears coarser than normal, containing a greatly reduced number of free myeloid elements. There is no evidence of regenerative hemopoiesis. This finding is correlated with the blood changes during life.

Comment

The tissue changes in spleen, thymus, and bone marrow, in this case, are those which are generally believed to be characteristic of Hodgkin's disease. The remarkable feature of the case is the complete absence of enlargement of either the superficial or deep lymph glands. Boyd[1] describes a case in a boy aged twelve, with profound anemia, enlarged spleen, enlarged liver, but no enlargement of the cervical, axillary or inguinal lymph glands. At autopsy the retroperitoneal and mediastinal glands were found to be enlarged, and microscopic evidence of Hodgkin's disease was found in these, in the spleen and two accessory spleens, in the liver, thymus, and bone marrow. Krumbhaar[2] reports the case of a man aged fifty-five with anemia, ascites, and enlarged spleen. Autopsy revealed characteristic lesions of Hodgkin's disease in the spleen and bone marrow. No lymph nodes were found to be abnormal grossly and none were removed. From histological evidence he believes the disease may have been primary in the bone marrow. He states that, to his knowledge, such a case has not been previously reported.

Hodgkin's disease may be regarded according to these authors as a disease of the reticulo-endothelial system, the involvement being first local, then general. Accordingly the lesions may be found wherever this system exists, as in lymph nodes, spleen, liver, and bone marrow. It is not essentially a disease of lymphoid tissue.

Summary

A case of Hodgkin's disease without enlargement of lymph glands is reported. Hodgkin's disease is not uncommon, but atypical cases such as this one are rare. In this case and in the other cases mentioned it was not possible to establish the diagnosis antemortem. Bone marrow involvement in Hodgkin's disease produces progressive leukopenia and secondary anemia.

REFERENCES

[1]Boyd, William: Pathology of Internal Diseases, p. 657. Lea and Febiger; Philadelphia, 1931.

[2]Krumbhaar, E. B.: Hodgkin's Disease of Bone Marrow and Spleen Without Apparent Involvement of Lymph Nodes. Am. J. Med. Sci., 182, 764. 1931.

PUBLIC HEALTH NOTES

Editor: J. W. AMESSE, M.D.

The Greatest of These Is Health

Whatever else might change, it remained true that among the assets on which we had to rely in the new advance there was none so rich as the health of the nation. Economy was one thing, parsimony another. Economy enriched; parsimony might impoverish. Economy demanded the development of national assets so that each might give the greatest return to the nation. The return on no asset of the nation could be more increased by development than the return on the asset of health. The common health was the very foundation on which all fresh effort must be built, the base from which all advance must proceed. "Health, liberty, and wealth, and the greatest of these is health; for if a nation has that, the others will be added to it."—Sir Hilton Young.

Resolved!

On October 29, 1931, about three years after the organization of the Suffolk County Department of Health, the following resolution was unanimously adopted by the Suffolk County Medical Society (N. Y.) at the largest annual meeting in its history: Resolved, that the Suffolk County Medical Society hereby reaffirms its opinion first expressed in 1926 that public health administration can only be efficiently done by county organization (to replace township part-time organization); that after three years of experience the local profession more strongly than ever believes that the efficiency of public health practice is greatly improved by county organization; and that the physicians of the county have found that a county health department is an asset in their professional work and an asset to their economic welfare.

Local Health Councils—A New Adjunct to Public Health

An interesting development of the past few years has been the organization of health councils in various cities of the country. These councils are composed of one or two official representatives from each health agency in the city, both official and voluntary. Their purpose is: (1) Promotional, to encourage the development of public health work in all parts of the city and to assist official health agencies with the organization of public opinion; (2) Correlative, to avoid duplication between the health agencies in the city so far as possible by appointing special committees to study particular problems and debating the findings of these committees thoroughly in an open forum composed of the entire health council; (3) Analytic; the health council becomes the source of unbiased information concerning the gaps in the health machinery of the city for the use of appropriating bodies and philanthropists who wish to donate funds for public health work. On the whole, the health council seems to be here to stay. In the west, health councils are now functioning successfully in Denver, San Francisco and Pasadena.—News letter, Western branch, American Public Health Association, April 7, 1932.

Relief Statistics of Cities

The relief statistics compiled monthly by the Russell Sage Foundation and the United States Children's Bureau are being amalgamated into a single series for collection and publication of which the Children's Bureau is assuming responsibility. Beginning with figures for January of this year, the Children's Bureau will issue a monthly bulletin which will cover reports from 124 cities, including 85' cities of over 100,000 population and thirty-nine cities of 50,000 to 100,000. Miss Anne E. Geddes of the foundation has been appointed by the bureau for a period of six months to direct the amalgamation of the two series, and Ralph G. Hurlin, director of the department of statistics of the foundation, has been appointed consultant in social statistics.

The new bulletin will show the trend month by month in the amounts spent for family relief, the number of night's lodgings given, and the number of meals served to the homeless and transient. A quarterly bulletin will also be issued containing more detailed figures and analyses of the relief

situation in various sections of the country, the expenditures from local public treasuries and private charitable organizations, etc.

The amalgamation grew out of a request made to the Children's Bureau more than a year ago by the President's Emergency Committee for Employment that such monthly statistics should be assembled, to supply current information as to conditions which would serve as an aid in planning programs for meeting the unemployment emergency. For three years the Russell Sage Foundation has been collecting such statistics and issuing reports for 81 cities of 100,000 or more population in the United States and Canada, while since September, 1930, the Children's Bureau has been collecting the statistics and issuing monthly reports for cities of 50,000 to 100,000 population and of 100,000 and over reporting to the bureau. The new plan will eliminate duplication in the reports from these larger cities as well as present a more comprehensive picture of the country at large.—Child Welfare News Summary, Children's Bureau, U. S. Department of Labor.

Tuberculosis Campaign

Tuberculosis Associations throughout the country are joining in an effort this year to reach every individual who has been in contact with a case of tuberculosis to the end that all those who need it may be brought under the care of a private physician or a clinic. "Tuberculosis causes tuberculosis—every case comes from another," is the slogan for the campaign which is being given wide publicity through radio talks, posters, newspaper and magazine stories.

Health and Social Work Data

In the March, 1932, number of the American Journal of Public Health Dr. Henry F. Vaughan gives the following account of the first social work year book published by the Russell Sage Foundation in New York City.

"The Russell Sage Foundation has undertaken the biennial publication of a book which gives the progress of social work. This book is not intended to be an encyclopedia of social problems or social conditions. It does, however, outline in logical sequence the advance which has been made during the current year in the field of social service and public health, and frequently overlaps into the closely related professions of education and medicine.

"This, the first volume of the series, outlines a background in which is presented historically the steps which have led up to the present status. The book has been prepared by special contributors who have worked under a supervisory committee. An attempt has been made to record recent events and developments including: first, laws passed on topics included in the volume; and secondly, reports collected by the leading social service organizations, community chests, welfare, health, and education divisions of the government.

"There have been supplied over 400 laws and 2,300 reports collected on schedules covering sixty-three different fields of social work. The book contains also a valuable reference to all the national health and social agencies including the purpose and activities of each and the number who constitute its membership."

Public Health and the Depression

An editorial in the April number of "The American Journal of Public Health" directs the attention of all interested to the serious aspect of the economic depression in its effect in public health work. Many state boards are living from hand to mouth with money only for absolute necessities. The situation is considered so serious that the executive board of the Association has felt compelled to call attention to it through a series of resolutions. These resolutions appeal to the country in the serious economic depression "that every effort be made to maintain and even to advance the effectiveness of our health departments, and that the various agencies in the communities interested in the public health be asked to maintain unimpaired health budgets, trained personnel and services which have proved their worth in safeguarding the first wealth of every community—the health of its people."

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

Editor: J. J. WARING, M.D.

Robert Koch

On March 24, 1882, Robert Koch read his famous paper "Die Aetiologie der Tuberculose" announcing the discovery of the tubercle bacillus before the Physiological Society of Berlin. A few weeks later this address was published in the Berliner Klinische Wochenschrift and shortly translations into English appeared in the Canada Medical and Surgical Journal (Montreal, 1881-2 X, 649, 705) and the Cincinnati Lancet and Clinic (1883, n. s., X, 428-439).

In celebration of the fiftieth anniversary of this event, important not only in the history of tuberculosis but in the history of the science of Bacteriology, Dr. Allen K. Krause, editor of the American Review of Tuberculosis, published in the March issue of that journal a new translation of the original paper by Dr. and Mrs. Max Pinner. This translation, together with a fine introduction by Krause, now appears as a separate reprint by the National Tuberculosis Association.

One cannot do better than read, along with this reprint, the three papers by Corper, Bruns and Sewall delivered April 5 at the joint session of the Denver Sanatorium Association with the Historical Section of the Denver County Medical Society. From Sewall's paper I quote the beautiful poem of Warncke together with the creditable translation by Felix Baum.

Er hat mit seines Geistes Fackel tief
Ins dunkel Todestal hineingeleuchtet.
Aufspring das Tor, als er sein "Sesam" rief,
Und Augen warden hell, die leidbefeuchtet.
In Leben fand er Tod, im Tode Leben,
Und unermudlich vorwarts drang sein Streben.
Zu fruhe rief ihn ab ein jah Gebot.
Warum so fruh?———
Ihn furchtete der Tod.

His torch of genius into death's dark vale threw light.
The door sprang open when his "Sesame" it heard.
Eyes, once with sorrow dim, with joy grew bright.
In life 'twas death he found, and in death life
And never tiring strove forever forward.
Too early was he cut by Death's grim scythe,
And why so soon?———
Because death feared his sword.

Although its flavor is that of an aperitif, nevertheless De Kruif's chapter on Koch is both enjoyable and memorable. The second Mrs. Koch dismisses this account with the phrase "grotesque makeshift," but an older and wiser head (H. S.) says "the orthodox scientist might call this stuff newspaper history, when he fails to see the kinship between emotion and intellect."

The March number of the Journal of the Outdoor Life contains several splendid articles on Koch. For a critical review of early work on the etiology of tuberculosis and a fine discussion of Koch's paper nothing is better than the appropriate chapter in I. Straus "La Tuberculose et son Bacille." Also in the library is Lawrence Flick's "Development of Our Knowledge of Tuberculosis."

BOOK REVIEWS

Illustrated Primer on Fractures. Prepared by the Cooperative Committee on Fractures. Under auspices of Section on Surgery, General and Abdominal and Section on Orthopedic Surgery in cooperation with Department of Scientific Exhibit of the American Medical Association. Chicago: American Medical Association, 535 North Dearborn Street. 1930. 55 pages. Illus. Price $1.00.

This book consists of clearly depicted line drawings of the well-recognized and generally-accepted procedures in the care of fractures of the different bones of the body. Each drawing is briefly discussed on the same page, emphasizing the important points and salient features of the fracture in question. If carefully studied, the basic principles involved in the handling of the fractures, so well illustrated, in this Primer, can be easily understood by any physician. The accepted methods of traction, transportation, and reduction are explained in a clear, concise manner, though only the simplest means of treatment with plaster and splints are shown.

While by no means a complete treatise on the treatment of various complex fractures, the Primer is unquestionally a valuable contribution for the general practitioner and to the surgeon who does not confine his practice to bone and joint work.

Illustrated Primer on Fractures. Prepared by the Cooperative Committee on Fractures. Under

auspices of Section on Surgery, General and Abdominal and Section on Orthopedic Surgery in cooperation with Department of Scientific Exhibit of the American Medical Association. Second Edition. Revised and Reedited. Chicago: American Medical Association, 535 North Dearborn Street. 1931. 63 pages. Illus.

The second edition of the Primer on Fractures has appeared nine months following the issuance of the first edition because of the large demand for this book.

The general plan of Edition No. 1 has been followed in Edition No. II. Certain changes and innovations, however, appear in this second edition. Additional pages have been added, devoted to the proper management of (1) Compression Fracture of the Spine, (2) Active Movements in the Treatment of Fractures, (3) Massage during the Treatment of Fractures, and (4) Fracture of the Skull.

In view of this new material Edition II should prove to be an even more popular publication than Edition I.

CHARLES E. SEVIER.

A Text-Book on Orthopedic Surgery. By Willis C. Campbell, M.D., F. A. C. S. Professor of Orthopedic Surgery, University of Tennessee, College of Medicine; Attending Orthopedic Surgeon, Baptist Memorial Hospital, Methodist Hospital, St. Joseph's Hospital, Home for Incurables, Porter Home and Leath Orphanage; Chief of Staff, Crippled Children's Hospital, and Hospital for Crippled Adults, Memphis Illustrated. Philadelphia and London. W. B. Saunders Company. 1930. 666 pages.

This text-book, designed for the student, general practitioner and surgeon, presents the subject of Orthopedic Surgery in a very clear, concise, but comprehensive way. The various affections of joints, including traumatic dislocations, and of the bones, including two very practical chapters upon fractures, are also supplemented by several chapters upon the orthopedic affections of the soft tissues. The chapters dealing with the orthopedic examination and apparatus for the different anatomical parts are very helpful. The eminent position which the author holds in his specialty, guarantees the authoritativeness of the subject matter of this valuable book.

HENRY W. WILCOX.

The Story of Living Things. By Charles Singer. Harper & Brothers: 1931.

It is no easy matter to write a good book on the history of biology. The breadth and depth of knowledge required are such as few men possess; and of the few who are competent, still fewer have the time and opportunity to search the literature in order to make an adequate presentation of so vast a subject. Yet a man might have all these qualifications and lack the ability to write the story in a pleasing and instructive manner. Thus we owe to Dr. Singer a very special debt of gratitude, both for what he is and what he has done. His book consists of three parts. First, the Older Biology, which however brings us as far as Harvey and the discovery of the circulation of the blood. Second, the Historical Foundations of Modern Biology, showing the consequences of the invention of the microscope, describing the work of the early microscopists and leading us to the consideration of matters within the recollection of many living men. The final chapter of this section is devoted to evolution. The third part is on the emergence of main themes of contemporary biology, and has to do with modern ideas of the cell, the many aspects of physiology, the phenomena of sex, and finally the mechanism of heredity. How much there is of this, which could not have been written thirty years ago!

The book is well illustrated, and thoroughly interesting. It can be recommended to any one who has had some scientific training, and is not too narrow to take an interest in biology as a whole. The one significant criticism which occurs to me is this, that in some respects the author, following opinions frequently expressed, underrates the extent of our knowledge. Thus he says: "When we come to the mechanism by which evolution acts, we have made little progress. The mechanism that Darwin himself suggested has been almost universally rejected—at least in the form in which he propounded it." Now, of course, it is true that Darwin's theory has to be amended in certain important particulars, but modern work tends to show that in a large sense he was right and the detailed researches of a multitude of investigators tend to make for us a picture of the evolutionary process which represents, I believe, a very great deal of progress. Dr. A. D. Imms, now of the University of Cambridge, lately published a remarkable little book entitled "Recent Advances in Entomology." It exhibits, in a manner astonishing even to professional entomologists, the wonderful progress which has been and is being made in the understanding of the complexities of living things.

T. D. A. COCKERELL.

University of Colorado, Boulder.

Living the liver diet; with introduction by William P. Murphy, M. D. By Elmer A. Miner, St Louis: Mosby. 1931.

Dr. Miner presents in a simple and practical manner the art of living the liver diet. In many respects this book resembles primers for diabetics which have appeared from time to time and which have proved so popular.

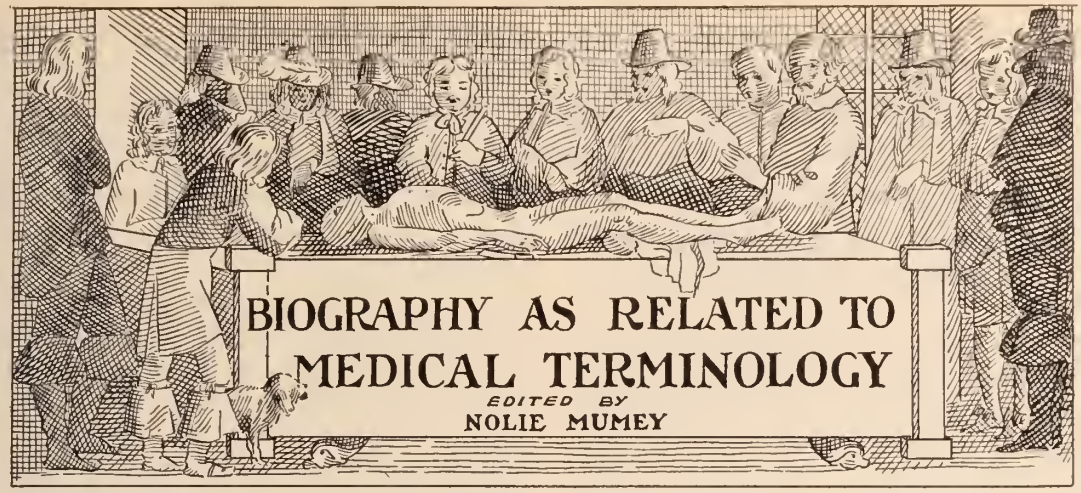
Dr. Miner is peculiarly fitted to write on this subject since he himself experienced the exhausting and painful symptoms of a malady which up to a few years ago was considered a fatal form of anemia. The advent of the liver diet must have been heralded by him as well as by other victims of the disease as a veritable reprieve from a death sentence. No wonder he considers that living the liver diet is a pleasant experience.

When anything like liver is shown to possess potent therapeutic properties, it seems that inevitably there must arise a host of those who would exploit a simple therapeutic principle and prepare various extracts, substitutes, or derivatives to be taken in capsule form, intravenously, intramuscularly, rectally and in almost any vicarious manner other than what seems to be the natural biologic manner of taking nutriment into the body.

Dr. Miner believes in eating liver, and enjoying it; and in this respect he has the endorsement of those who believe in the principles of rational therapeutics as well as those research workers who have shown that many preparations of liver have been tried and found wanting and do not compare favorably with the potency of plain liver.

Dr. Miner's book answers a definite need for those who require liver therapy. It is well written, simple to read, concise, and especially suitable for the needs of the patient.

HARRY GAUSS.



LAENNEC

(Continued from April)

In 1820 the stethoscope assumed a more finished product; it was imported from Paris by Trentell and Wurtz at the price of two francs, later a wood-turner by the name of Allnutt, who lived in Piccadilly, began manufacturing them. The instrument was seven and a half inches long, having a half inch bore. The mouth was bell-shaped, surmounted by an ivory ear-piece two inches and a quarter in diameter. It continued to be revised and changed until it has reached the present type.

The stethoscope and the discovery of auscultation were a great stimulus to internal medicine. Laennec's contribution to the advancement of that science was greater than any other person of ancient or modern times. After resuming his practice in Paris, he was appointed physician to the Duchesse de Berri by Dr. Halle. This was a very responsible position and paid the small sum of four thousand francs a year. On July 31st, 1822, he succeeded Dr. Halle as professor in the chair of medicine in the College of France. Political influence caused the members of the faculty to close the department for several months. It was not reopened until February, 1823. Laennec was then elected to fill the chair of clinical medicine.

He declined the offer of becoming a member of the Royal Council of Public Instruction and preferred to continue his clinical labors in a way to advance the new art of diagnosis, becoming very busy in his many endeavors as consultant, teacher, and physician. Each day he devoted several hours of his time to teaching and demonstrating his new methods. During this busy period of his career, he began revising and republishing another edition of his book which embodied the subject of treatment. His feeble body again failed to bear the strain of overwork. He finished his book and practically his life's labor simultaneously. He had a recurrence of a hard, dry cough which became so serious as to compel him to return to the native air of Brittany. The disease made rapid progress—he began to have febrile paroxysms, loss of weight, pain in the right side and a severe diarrhea. There is no question that he was suffering from pulmonary tuberculosis, the disease which his skill and ingenuity had done so much for. He was bled, in accordance with the practice at that time, and antiphlogistic measures were resorted to—all of which were useless, for he was stricken with the fatal malady of phthisis.

(To Be Continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

STATEMENT BY THE BOARD OF MEDICAL EXAMINERS

THE Colorado State Board of Medical Examiners has been criticized for divulging information which formed the basis for an article appearing in a recent edition of The Denver Post.

The article was published on Thursday, April 7, 1932, under the headline, "SNOOPING CHARGED IN STATE MEDICAL QUIZ," and continued as follows:

"Charges that the State Medical Board is using the attorney general's office as a detective agency to investigate the activities of the Colorado medical profession were made Thursday by Mayor S. B. Nichols of Walsh, Colo.

"Mayor Nichols conferred with Attorney General Clarence L. Ireland and demanded an investigation of the methods employed by Assistant Attorney General Charles H. Haines in bringing charges against Colorado physicians. Haines handles the legal affairs of the state medical board.

"Mayor Nichols headed a delegation of twenty leading citizens of Walsh who came to Denver to protest against charges of unprofessional conduct which were made against Drs. S. M. Hayes and Samuel Golden of Walsh. The two physicians were cleared of the charges at a hearing conducted by the medical board Wednesday.

"'This is an outrage,' Mayor Nichols told Attorney General Ireland. 'Haines is going about the state snooping into the private lives of reputable physicians and then bringing charges against them. The mere fact that charges are filed does serious damage to the reputation of the doctors.'

"Haines' activities, according to state officials, are financed from a fund which was created through assessing Colorado physicians and chiropractors $3 each.

"Mayor Nichols told Attorney General Ireland that members of the medical profession throughout the state are up in arms against the state board for having Haines conduct secret investigations of their activities.

"Attorney General Ireland declared he would make a personal investigation of the activities of the medical board.

"The medical board, at its session Wednesday, restored the license of Dr. H. H. Thomas of Denver."

Under date of April 9, 1932, Dr. H. R. McGraw, President of the Board of Medical Examiners, received the following letter from Mr. S. B. Nichols:

"Dear Dr. McGraw:

"I wish to call your attention to an article published in the Denver Post of April 7th, 1932, which was credited to me.

"I absolutely did not make any such statement to that reporter regarding the Medical Board; I know nothing regarding the activities of the Medical Board. The Denver Post evidently has an ax to grind as the statement appearing in the Rocky Mountain News is a true version of our conversation, because they were together when I said what I had to say.

"I did make the remark that I felt that the attorney, Mr. Haines, who conducted the investigation, had been unfair, for the reason that he did not care to hear anything in behalf of the doctors involved; that he resorted to testimony taken from people of questionable character and that to my personal knowledge two of them are illiterate.

"A party of five from Walsh called on the attorney general's office and complained about the methods used by Mr. Haines. We were assured by the attorney general's office that if what we said was true that this sort of thing would not be countenanced by the Medical Board.

"You have my permission to have this letter published if you care to.

"Respectfully yours,
(Signed) "S. B. NICHOLS."

It always has been, and still is, the policy of the Colorado State Board of Medical Examiners to give out no information concerning the physician involved and the charges against him unless the charges warrant the revocation of his license to practice in Colorado.

When such information is given out, this action is compelled by statute, which requires the Board to notify the clerk and recorder of each county in the state in which the license is recorded to remove the holder's name from his records.

If the names of the doctors who came up

for a hearing before the Board at its last meeting on April 5 and 6, and the charges preferred against them, had not been divulged by some of their own witnesses or by themselves, such information would never have been given out by the Board.

A vital purpose of the Board is not only to protect the public against negligent and ignorant malpractice on the part of licensees, but equally to defend doctors against unwarranted charges brought against them.

When charges are filed against any licentiate, no matter how trivial or unreasonable, it is the duty of the Board to investigate them fully. Most of this investigative work is carried on by the deputy secretary-treasurer, Mr. Charles H. Haines, under the direction of the Board. Naturally, the interviewing of persons who might possess knowledge relative to the charges must take place. The insinuation that Mr. Haines goes about the state "snooping" into the private lives of reputable physicians, then to bring charges against them, is ridiculous and without any foundation of fact. Very few reputable physicians have charges filed against them, but in such cases it is just as much the duty of the Board to investigate as if the charges were against one of doubtful reputation. Occasionally reputable physicians are saved much annoyance and undeserved publicity by the Board finding the charges are unfounded and thus heading off malpraetice suits.

W. W. WILLIAMS, M.D.,
Secretary, Colorado State Board of Medical Examiners.

IMPORTANT MEETINGS IN JUNE

MEMBERS of our State Medical Soeiety and others of our profession may or may not realize that opportunity is knocking at our door. Do you know that two great national organizations of special interest to physicians will meet in Colorado this year? The twenty-eighth annual meeting of the National Tuberculosis Association will be held at the Antlers Hotel, Colorado Springs, June 6, 7, 8 and 9, 1932.

The American Public Health Association, Western Branch, will meet at the Brown Palace Hotel, Denver, June 9, 10 and 11, 1932. It may be many years before either of these national organizations will again convene in Colorado.

Some of the most noted thinkers and exponents of health problems in this country will read papers at these meetings. Those who attend should be benefited by getting first hand information indicating the trend of thought among our greatest leaders in matters relative to health and life.

Those members of the American Public Health Association living in Colorado may find it convenient to secure additional members before or after the meeting in June. This writer will, on request, furnish the necessary blank form for any one desiring to apply for membership.

Physicians of Colorado and adjoining states are invited to take an interest and help make these national meetings a success, thus indicating the hospitality and importance of this western country.

S. R. McKELVEY.

AMERICAN PUBLIC HEALTH ASSOCIATION, WESTERN BRANCH
June 9, 10, 11, Denver

Attention is called to the forthcoming Third Annual Meeting of the Western Branch, American Public Health Association, in Denver, Colorado, June 9, 10, 11, 1932, immediately following the National Tuberculosis Association Meeting.

The Western Branch of the American Public Health Association was organized in 1928, and with the sanction of the parent body, the American Public Health Association, has increased its membership to over 1,600 during these four years. Its purposes are to offer western public health people opportunities for exchange of experience, interchange of views with our eastern colleagues, and in general to promote western public health developments.

Three major items of special western importance will be included on the program at the Denver meeting: Psittacosis, now apparently endemic in native western birds of the parrot family, to be discussed by Doctor Karl F. Meyer of the Hooper Foundation, San Francisco; reciprocal relations for the control of shell fish in Pacific ports, to be discussed by the state health officers of California, Oregon, and Washington; Rocky Mountain spotted fever, with special reference to its similarity to typhus, discussed by Doctor R. H. Riley, health officer of Maryland. Several national as well as western public health problems will be discussed by both eastern and western authorities.

The meeting is to be addressed by Doctor Louis I. Dublin, President of the American Public Health Association. The presiding officer will

be Doctor E. T. Hanley, city health officer of Seattle, President of the Western Branch. Other national authorities who have accepted invitations to appear on the program are: Doctor John Ferrell, President-Elect, American Public Health Association; Doctor E. L. Bishop, Chairman of the Executive Board, American Public Health Association; Doctor Kendall Emerson, Acting Executive Secretary, American Public Health Association; Doctor Taliaferro Clark, Acting Surgeon General, U. S. Public Health Service; Doctor H. W. Hill, Professor of Bacteriology, and Nursing, and of Health, University of British Columbia, Vancouver; Doctor M. P. Ravenel, Editor, Journal of the American Public Health Association, and others.

PRELIMINARY PROGRAM, AMERICAN ASSOCIATION FOR THE STUDY OF GOITER, HAMILTON, ONTARIO, CANADA

June 14, 15, 16, 1932

June 14, 1932

7:15-9:30

Hospital Clinics

10:00-12:00

Dry Clinic

Dr. Roscoe Graham, Toronto, Ont.

Discussion—

Dr. A. Graham, Cleveland, Ohio.
Dr. A. Jackson, Madison, Wis.
Dr. H. M. Chute, Boston, Mass.

Lunch

Dr. Shier, Pittsburgh, Pa.
Dr. F. W. Rankin, Mayo Clinic, Rochester, Minn.
Dr. S. B. Rose, University Clinic, Philadelphia, Pa.
Dr. F. Deneen, Bloomington, Ill.
Dr. G. S. Fahrni, Winnipeg, Man.
Dr. C. O. Rice, Minneapolis, Minn.

Prize Award Essay

Dr. J. Wm. Hinton, New York City.
Dr. Eugene Potter, Associate Prof. Surgery, Ann Arbor, Mich.

Evening Meeting

Dr. H. C. Naffziger, Prof. Surgery, University of California.

Presidential Address

Dr. M. O. Shivers, Colorado Springs, Colo.
Dr. C. H. Mayo, Mayo Clinic, Rochester, Minn.

June 15, 1932

7:15-9:30

Hospital Clinics

10:00-12:00

Dry Clinic

Dr. E. R. Arn, Dayton, Ohio.

Disappointing Results

Discussion—

Dr. N. Percy, Chicago, Ill.
Dr. K. Kinard, Kansas City, Mo.
Dr. E. S. Murphy, Dixon, Ill.
Dr. F. B. Dorsey, Keokuk, Iowa

Lunch

Dr. Andre Crotti, Columbus, Ohio.
Dr. E. M. Eberts, Montreal General Hospital, Montreal, Quebec.
Dr. M. B. Tinker, Ithaca, N. Y.
Dr. Collip, Prof. Biochemistry, McGill University, Montreal, Quebec.

Garden Party

Dr. Geo. W. Crile.

Annual Dinner

The Presidents of—
Royal College of Surgeons of Canada.
Canadian Medical Association.
Ontario Medical Association.

June 16, 1932

7:15-9:30

Hospital Clinics

10:00-12:00

Dry Clinic

Borderline Cases

Introduced by Dr. J. K. McGregor and Staff, Hamilton General Hospital

Discussion—

Dr. L. F. Barker, Baltimore, Md.
Dr. H. S. Plummer, Rochester, Minn.
Dr. W. B. Mosser, Kane, Pa.
Dr. J. R. Yung, Terre Haute, Ind.

Lunch

Dr. John Oille, Toronto, Ont.
Dr. Lewellys Barker, Baltimore, Md. (40 minutes).
Dr. G. E. Pfahler, Philadelphia, Pa.
Dr. Frank Lahey, Lahey Clinic, Boston, Mass. (40 minutes).
Dr. A. Lockwood, Lockwood Clinic, Toronto, Ont., Canada.
Dr. W. J. Deadman and Miss Graham, Hamilton, Ont., Canada.

NATIONAL TUBERCULOSIS ASSOCIATION PUBLICIZES COLORADO

June Issue of the Journal of the Outdoor Life Tells Story of Growth as Health Resort

In connection with three prominent conventions to be held in Colorado in June; namely, The National Tuberculosis Association, which meets at Colorado Springs, June 6 to 9; The American Sanatorium Association, which meets at Denver, June 6; and the American Public Health Association, Western Branch, which meets at Denver, June 9 to 11; the National Tuberculosis Association has agreed to publicize Colorado, its institutions, climatic advantages and scenic attractions through the pages of its national publication, known as the Journal of the Outdoor Life.

The Journal of the Outdoor Life had its origin some twenty-nine years ago; its first editor being Dr. Lawrason Brown of Saranac Lake. It has since become an outstanding journal in the tuberculosis field.

The June issue of the Journal will be known as the Colorado edition and will contain 126 pages of reading material, illustrations and portraits of Colorado institutions; including two unusual pages of Colorado birds, two pages of pioneer characters, four pages of Colorado animals and Colorado scenery and two pages of Colorado flowers.

In addition, the following men are contributing articles, which have been specially prepared for this issue: James J. Waring has contributed an article on "High Altitude Effects and After Effects;" C. F. Gardiner of Colorado Springs on "Pioneer Tuberculosis Work in Colorado:" Henry Sewall of Denver on "Tuberculosis: Colorado Opinions;" Gerald B. Webb of Colorado Springs on "Colorado and High Altitudes as Health Resorts;" "New Ways in Health Education," by Jessie I. Lummis, Executive Secretary, Denver

Tuberculosis Society; I. D. Bronfin on "The Treatment of Non-Tuberculous Conditions in the Modern Tuberculosis Sanatorium;" H. J. Corper, Director of Research, National Jewish Hospital, on "Colorado's Fifth Estate in Tuberculosis," which will tell the story of the research work being carried on in the state; Miss Helen L. Burke, executive secretary of the Colorado Tuberculosis Association, "For Those Who Went West;" L. W. Frank, president of the Denver County Medical Society, is writing an article entitled "Sherman Grant Bonney," and H. G. Wetherill is contributing a "Memorial and Tribute to Dr. Samuel Edwin Solly," one of Colorado's pioneers in Tuberculosis work. All these in addition to other interesting features, will appear in the Colorado edition of the Journal of the Outdoor Life; June, 1932.

Copies will be on sale after May 20 at newsstands or at the Colorado Tuberculosis Association, 305 Barth Building, Denver, or Denver Tuberculosis Society, Community Chest Building, Denver.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Medical society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

BOULDER COUNTY

The regular monthly meeting of the Boulder County Medical Society was held at the Boulderado Hotel, Thursday, April 14, 1932. The program was preceded by a dinner. Five case reports were presented; Dr. F. R. Spencer and Dr. C. D. Bonham presented a case of Supra-orbital Osteomyelitis and Endocarditis. Dr. E. B. Queal presented a case of Aneurysm of Aorta. Dr. C. E. Bixler a case of Hodgkins Disease. Dr. C. Gillaspie a case of Progressive Muscular Atrophy and Dr. O. M. Gilbert a case of Aortic Disease. Thirty minutes were allowed for discussion of the cases.

M. L. JOHNSON,
Secretary.

* * *

DELTA COUNTY

Dr. A. C. McClanahan was the principal speaker before the regular March meeting of the Delta County Medical Society, held March 25, in Dr. Lee Bast's office, Delta. Dr. McClanahan spoke on "Cerebral Hemorrhage."

LEE BAST,
Secretary.

* * *

FREMONT COUNTY

Two papers by guests from Pueblo were read at the regular meeting of the Fremont County Medical Society held March 28, at Florence. Dr. H. G. Rusk spoke on "Foreign Bodies of the Respiratory Tract" and Dr. C. E. Earnest spoke on "Sinusitis in Connection with Roentgen Ray Pictures."

ARCHIE BEE,
Secretary.

LARIMER COUNTY

The regular meeting of the Larimer County Medical Society was held at Fort Collins, April 6, 1932. Dr. W. F. Brownell read a paper on "Some Eye Examinations." Dr. I. W. Haughey discussed the paper. Dr. John Gasser read a paper on "Prostatic Fulguration." Dr. N. L. Beebe discussed Dr. Gasser's paper. Both papers aroused much interest among the members. The meeting was preceded by a dinner at the College Cafeteria.

C. E. HONSTEIN,
Secretary.

* * *

LAS ANIMAS COUNTY

Dr. Ben Beshoar was the principal speaker at the regular meeting of the Las Animas County Medical Society held April 1, 1932, at Mt. San Rafael Hospital. Dr. Beshoar spoke on "Puerperal Fever."

C. O. McCLURE,
Secretary.

* * *

PUEBLO COUNTY

The Pueblo County Medical Society held its first April meeting on April 5 at the Hotel Congress. Dr. K. D. A. Allen of Denver and Dr. G. A. Unfug presented a paper on "Acute and Chronic Obstruction of the Small Intestine."

The second April meeting was a dinner meeting, held April 19 at the Hotel Congress. The program consisted of a Symposium on Chronic Arthritis, Dr. R. H. Finney discussing the "General Considerations," Dr. E. H. Corry "Physiotherapy" and Dr. J. S. Norman the "Orthopedic Aspect."

L. L. WARD, Secretary.

* * *

PROWERS COUNTY

The Prowers County Medical Society held its April meeting in Lamar the afternoon of April 5. Dr. W. A. Bryant of Springfield was elected to membership on transfer from the Finney County Medical Society of Kansas and Dr. E. M. Sherman, formerly of Holly, now retired and residing in Pasadena, California, was elected to honorary membership. The Society, by a close vote, failed to adopt a resolution of reprimand for one of its members who took part in the Springfield tonsil clinic of last autumn.

R. J. RUMMELL, Secretary.

* * *

WELD COUNTY

Dr. E. E. Haskell was the principal speaker at the Weld County Medical Society meeting held April 4 at the Greeley Hospital. Dr. Haskell presented a paper on "Resume of Cancer." A new Constitution and By-Laws were adopted at this meeting.

TRACY D. PEPPERS,
Secretary.

COLORADO OPHTHALMOLOGICAL SOCIETY
Dinner for Dr. Melville Black

On Friday, March 25, at the University Club the Colorado Ophthalmological Society held its annual dinner, Dr. Melville Black being the guest of honor. The toastmaster, Dr. F. R. Spencer pointed out that in the spring of 1899, Dr. Black with Drs. Wm. C. Bane and Edward Jackson and the late Dr. Edmund W. Stevens, had started this society, which was one of the first in this specialty in the United States.

Dr. Edward Jackson read letters of congratu-

lation that had come from far and wide. Dr Wm. C. Bane spoke of Dr. Black's many publications and of the instruments that he has invented. Dr. Robert Levy, as one of the invited guests, recalled his early acquaintanceship with the guest of honor. Dr. Levy also spoke of Dr. Black's work in teaching ever since he came to Denver, and of the high ethical and friendly relationships he had maintained toward other physicians and his patients.

Dr. Melville Black, in his inimitable and refreshing manner, responded with many delightful reminiscences of his boyhood days in Texas, Dr Black having started one of the first drug stores in Wichita Falls.

The paper of the evening was given by Dean O. C. Lester, Professor of Physics at the University of Colorado. Dr. Lester spoke upon "The Nature of Light," explaining the various theories now advanced.

R. W. DANIELSON,
Secretary.

Obituary

Dr. Joseph W. Pecony

Dr. Joseph W. Pecony, member of the Medical Society of the City and County of Denver, died April 7, 1932, from poisoning.

Dr. Pecony was forty-four years old. He was a graduate of Creighton University School of Medicine, having received his medical degree in 1914. He was elected to membership in the Medical Society of the City and County of Denver in 1919 and had been a member continuously since that time.

Dr. W. P. Dooley

Dr. Willis P. Dooley of Akron, Colorado, member of the Morgan County Medical Society, died in Galveston, Texas, March 9 from injuries incurred in an automobile accident. His remains were brought to Denver for interment.

Dr. Dooley was born in Lebanon, Indiana, in 1868. He received his medical degree in 1897 from the Medical College of Indiana. Dr. Dooley was elected to membership in the Morgan County Medical Society in 1893 and has been a member continuously since that time.

Dr. E. E. Evans

Dr. Emerson E. Evans, president of the Morgan County Medical Society, died March 22, 1932, at the Fort Morgan Hospital from pneumonia.

Dr. Evans was born in Barnesville, Ohio, June 20, 1864. He received his elementary education at Linden, Iowa, and his pre-medical courses at Simpson College, Indianola, Iowa, then entering the medical school at Washburn College. He received his medical degree in 1894 and after a few years of general practice took a position as instructor in anatomy at the University of Kansas School of Medicine. He moved to Colorado in 1902, settling at Fort Morgan, where he practiced until his death. He became a member of the Morgan County Medical Society in 1903 and was a leader in its activities since that time.

He is survived by his widow, two brothers residing in Topeka, Kansas, and a sister in Seattle, Washington.

Dr. J. P. Craney

Joseph Patrick Craney, born in Philadelphia, in 1876, died April 8, 1932, in Denver. Dr. Craney was a graduate of the Medico-Chirurgical College of Philadelphia of the class of 1902, and was engaged in private practice of his profession there until July of 1916, when he came to Denver. From this time until 1923, he served as resident physician at the Agnes Memorial Sanatorium in Denver, the last three years of which he served as assistant superintendent and Medical Director. Leaving the institution at this time, he engaged in the private practice of medicine and was recognized as a man of high standing and of the highest of ideals. At the time of his death he was a member of the staff at the Denver General Hospital; St. Joseph's Hospital of Denver; and was a member of the Denver City and County Medical Society; Colorado State Medical Society; Denver Sanatorium Association, and was a devout member of the Roman Catholic faith. His body was taken to Philadelphia for burial, where he is survived by three sisters, to whom the medical profession of Denver extends the deepest regrets and sympathy.

WOMAN'S AUXILIARY

THE ORGANIZATION COMMITTEE

The letter from the National President, Mrs McGlothlan, in the February number of Colorado Medicine stresses many of the important points outlined for the work of the Organization Committee.

In Colorado we have been most fortunate in having both Mrs. McGlothlan and Mrs. James V. Percy in Denver to give their personal messages to auxiliary members. Mrs. James V. Percy, as a vice president of the national auxiliary, is organization Chairman for the Fourth or Western District.

Mrs. Percy urges every Doctor's wife to realize the importance of participation in the work of the organized groups in her community doing health or community welfare work, in order that she may help them obtain the best available information through scientifically prepared literature and reliable interesting speakers from among the profession. Due, probably, to professional modesty, doctors and their families are not sufficiently aroused as to the need of being more active in the life of their communities. As Mrs. Percy says, some of these organizations are too

often used as tools by various interests who tend to minimize or eliminate scientific health programs. She also urged that the doctor's wife and family become accurately informed on contagious disease prevention and control, as well as conversant on the popularly discussed problems of health interests, so that authentic contributions can be given to combat the misconceptions often all too generally prevalent in informal discussions among small groups.

The Bureau of Health and Public Instruction of the American Medical Association at 535 North Dearborn Street, Chicago, will supply, free of charge, splendid material which can be given out to groups desiring programs. This is prepared by skilled writers to meet a popular demand. Many of the articles in Hygeia can be used as published in the magazine. For this reason, it is advisable for each Auxiliary to keep available a file of Hygeia magazines as articles which have been published in it will splendidly meet program needs.

The National Auxiliary has sent to all County Auxiliary Presidents, packets which contain much valuable definite material which is suitable for use in the Auxiliary and other programs, and may be given out for use by others who can use health material.

The radio talks are entertaining as well as scientific and wherever a broadcasting station is available, the Auxiliary should ask the County Medical Society Advisory Council to pass upon the advisability of their use over that local station.

The Woman's Auxiliary to the Weld County Medical Society through its Advisory Council is completing arrangements for a series of the radio talks published by the American Medical Association to be broadcast over KFKA in Greeley during the evening educational hour.

It seems especially desirable that each Auxiliary make every effort to keep in touch with all the potential as well as active members of its county, striving to approximate a 100 per cent organization.

Reports of work done by the various county Auxiliaries in Colorado problems or questions will be gladly received if addressed to me at 1127 Sixteenth Street, Greeley, Colorado.

(MRS. E. W.) ETHEL D. KNOWLES,
Organization Chairman for Colorado.

DENVER COUNTY

The Woman's Auxiliary to the Denver County Medical Society inaugurated a "President's Day" at the March meeting held at the Nurses Home, Denver General Hospital. Much interest was evidenced in this initial event and with some forty presidents of the various Women's Clubs of Denver, the members present enjoyed a splendid program prepared by the entertainment committee. Mrs. H. J. Corper, president, graciously welcomed the guests. Mrs. Herman Stein introduced the speaker and musicians. The officers and board of directors were hosts, serving tea from attractively arranged and decorated tables, following the program.

Dr. M. Ethel V. Fraser gave an enlightening health talk emphasizing the advantages of physical exercise to keep the body fit, and stressing the need of periodic health examinations. She concluded with a humorous account of ancient medical practices—even dating back to 1100 A. D. —in which superstition ruled.

Miss Margaret Drennen, accompanied by Miss Eddye Duval, gave an interesting group of vocal solos: "When Love Is Kind," "Shoes" and "Three Kisses," responding to an encore with "Drink to Me Only With Thine Eyes."

The Cole Junior High School Trio chose 'March Miniature" and "Viennese Serenade" as their contribution. Appreciative thanks go to these talented artists adding so great a share to a most successful entertainment.

Mrs. Bessie Haskin extended a cordial invitation to attend the Nurses Graduating exercises.

Women Organize for Protection Against Cancer

The Women's City Club of Chicago has recently instituted a system of "health memberships" designed to aid in the prevention of cancer and other diseases. To the more than 1,400 members of the club the health membership is available at $15 a year. This entitles them to an annual physical examination by physicians at the Women's and Children's Hospital, a hospital run solely by women and staffed only by women physicians. The membership also allows two weeks' hospitalization annually without further cost.—(The Chicago Tribune.)

An attempt to use intensive therapy with Vitamin A to prevent the spread of respiratory infection (common cold) among infants under two years of age has been made in a Canadian hospital, without apparent success, by H. P. Wright, J. B. Frosst, F. Puchel, and M. R. Lawrence. The control group of babies received a good supply of vitamin A, including cod-liver oil, so that it is quite possible that though no difference between the control and the treated group was obtained, none was to be expected. The incident of common cold in both groups was considerable, and though with much less vitamin A, it might very likely have been higher. The vitamin therapy certainly produced nothing in the nature of a general protection.

Too little attention has been paid to the importance of including vitamin B in the diet of infants and young children. Adequate evidence seems to indicate that it is capable of overcoming anorexia, loss of weight, and evidence of anemia.—Strong.

Colorado State Medical Society Officers, 1931-1932

President: Edward Delehanty, Denver.

President-elect: Frank B. Stephenson, Denver.

Vice Presidents: First, H. C. Goodson, Colorado Springs; Second, Lanning E. Likes, Lamar; Third, C. E. Sidwell, Longmont; Fourth, L. L. Hick, Delta.

Constitutional Secretary: Lorenz W. Frank, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 656-658 Metropolitan Bldg., Denver. Telephone KEystone 0870.

Delegates to the American Medical Association: Senior, John W. Amesse, Denver; Alternate, William C. Bane, Denver; Junior, Crum Epler, Pueblo; Alternate, J. N. Hall, Denver.

Councillors:

		Term Expires
District No. 1	Ella A. Mead, Greeley	1935
District No. 2	G. P. Lingenfelter, Denver	1934
District No. 3	George D. Andrews, Walsenburg (Chairman)	1933
District No. 4	W. W. Crook, Glenwood Springs	1936
District No. 5	C. A. Davlin, Alamosa	1932

Standing Committees, 1931-1932

Credentials: Lorenz W. Frank, Denver, Chairman; L. L. Herriman, Alamosa; George T. O'Byrne, La Junta.

Scientific Work: C. S. Bluemel, Denver, Chairman; W. A. Kickland, Fort Collins; A. J. Markley, Denver.

Arrangements: Lowell Little, Fort Collins, Chairman; W. B. Hardesty, Berthoud; William P. Gasser, Loveland; Roy F. Wiest, Estes Park; Gerald B. Webb, Colorado Springs, ex-officio.

Public Policy: H. R. McKeen, Denver, Chairman; H. S. Finney, Denver, Vice Chairman; W. W. King, Denver; B. B. Jaffa, Denver; James A. Philpott, Denver; George H. Curfman, Salida; Z. H. McClanahan, Colorado Springs; W. W. Harmer, Greeley; Carbon Gillaspie, Boulder; Edward Delehanty, Denver, ex-officio; L. W. Frank, Denver, ex-officio; Mr. Harvey T. Sethman, Denver, ex-officio.

Publication: William H. Crisp, Denver, Chairman; C. F. Kemper, Denver; C. S. Bluemel, Denver.

Medical Defense: C. F. Hegner, Denver, Chairman; W. W. Wasson, Denver; T. D. Cunningham, Denver.

Medical Education and Hospitals: Herbert A. Black, Pueblo, Chairman; Fred A. Forney, Woodmen; Philip Hillkowitz, Denver.

Library and Medical Literature: Frank W. Kenney, Denver, Chairman; E. E. Evans, Fort Morgan; James J. Waring, Denver.

Co-operation with Allied Professions: John Andrew, Longmont, Chairman; Robert L. Downing, Durango; T. E. Carmody, Denver.

Medical Economics: John M. Foster, Jr., Denver, Chairman; John B. Crouch, Colorado Springs; B. B. Blotz, Rocky Ford.

Necrology: John F. McConnell, Colorado Springs, Chairman; George A. Moleen, Denver; Robert B. Porter, Glenwood Springs.

Special Committees, 1931-1932

Medical Extension: Maurice H. Rees, Denver, Chairman; O. M. Gilbert, Boulder; C. E. Harris, Woodmen.

Industrial Commission Fees: William H. Halley, Denver, Chairman; William Senger, Pueblo; John R. Espey, Trinidad; George B. Packard, Denver; Harold T. Low, Pueblo.

Advisory Committee to the School of Medicine: Charles O. Giese, Colorado Springs, Chairman; N. A. Madler, Greeley; Fred M. Heller, Pueblo; T. Leon Howard, Denver; J. A. Hipp, Olney Springs; G. C. Cary, Grand Junction; Walter E. Hays, Sterling.

Cancer Survey: C. B. Ingraham, Denver, Chairman; Sanford Withers, Denver; Glen E. Cheley, Denver; John B. Hartwell, Colorado Springs; James D. Carey, Fort Collins; C. A. Davlin, Alamosa; John P. McDonough, Gunnison.

State Registration Fee: Gerrit Heusinkveld, Denver, Chairman; Peter J. McHugh, Fort Collins; Claude E. Cooper, Denver; O. D. Groshart, La Junta; Lee Bast, Delta.

Constituent Societies Meeting Dates; Secretaries

Arapahoe County—Last Monday of each month; secretary, W. C. Crysler, Littleton.

Boulder County—Second Thursday; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, G. W. Larimer, Salida.

Crowley County—Second Tuesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, H. I. Barnard, Denver.

El Paso County—Second Wednesday of each month; secretary, W. A. Campbell, Jr., Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs, Colo.

Huerfano County—Third Thursday of each month; secretary, J. M. Lamme, Walsenburg, Colo.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, Walter C. Keller, Genoa.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, C. E. Honstein, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—First Tuesday of each month; secretary, H. M. Tupper, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each month; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Thursday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, R. J. Rummell, Lamar, Colo.

Pueblo County—First and Third Tuesday of each month; secretary, L. L. Ward, Pueblo.

San Juan—Second Saturday, January, April, July and October; secretary, R. L. Downing, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Weld County—First Monday of each month; secretary, Tracy D. Peppers, Greeley, Colo.

WYOMING SECTION

President, R. H. Sanders, Rock Springs — Vice President, Herbert L. Harvey, Casper
President-elect, Frederick L. Beck, Cheyenne
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to the A. M. A.: George P. Johnston, Cheyenne — Alternate, Earl Whedon, Sheridan
Councillors: C. Y. Beard, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shaffer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan — Emory L. Jewell, Shoshoni — C. W. Jeffrey, Rawlins

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

CORRECTION!

YE EDITOR humbly begs the pardon of the Sweetwater County Medical Society and all members of the State Society, for an error in reporting the dates of the Rock Springs meeting of the Wyoming State Medical Society.

The dates should have been given as July 18 and 19, and not as they were in the editorial.

There has been no change of dates and the meeting will be held as scheduled.

Please mark on your calendars the 18th and 19th of July for the Rock Springs meeting. While we are speaking of this meeting, include these dates in your summer vacation, and after arriving at Rock Springs, plan either to go out to Salt Lake and enjoy a few days, or take a mountain trip such as up into the Pinedale or Teton country.

Many will say that they cannot afford to make such a trip, that times are too hard and that the "repression" is on. Yes, times are hard and prosperity is not around the corner, but that is one good reason why you should make a little side trip, and a very important reason why you should attend the annual meeting this year. You've been blue and you're going to be bluer. What you need is a tonic. By meeting with the other fellows and learning new things, you'll be a better doctor. You'll come home with a renewed sense of responsibility, and the balance of the year will be a happier one by reason of the Rock Springs trip.

Every doctor in the State of Wyoming owes it to himself and his patients to attend that meeting. It will be the bright spot of 1932.

THE PUBLIC POLICY AND LEGISLATIVE COMMITTEE MEETING

President Dr. E. L. Jewell called a meeting of the nine members of the Public Policy and Legislative Committee in Casper April 10. The following members were present: Drs. Jewell, Sanders, Beck, Whedon, Kamp, and Reed. Drs. Keith, Hassed, Harvey, Smith, Krueger, Replogle and Warner were also present in an advisory capacity.

Dr. J. C. Kamp of Casper entertained the visiting doctors with a delightful dinner Saturday night at the Casper Country Club, of which he is president. The meeting opened at 10 a. m. and the entire day was spent considering matters of the utmost importance to the citizens of Wyoming.

Mr. G. M. Willson, Superintendent of the State Home for Feeble-minded, presented the subject of Eugenic Sterilization in a very able manner. A committee will be appointed by Chairman Jewell to study the question further and make recommendations to the Public Policy and Legislative Committee.

Many matters of general interest to the profession were discussed. After luncheon a detailed paper on the subject, "A Study of the Medical Practice Act of Wyoming" by William C. Woodward, director of the Bureau of Legal Medicine and Legislation, American Medical Association, Chicago, was read by Dr. Whedon. The committee will consider the subject again before the Rock Springs meeting and doubtless will have a

report to present to the House of Delegates at that place and time.

The paper will be found in this issue. It would be well for every member of the State Society carefully to read and digest this most carefully prepared and extensive review of the history and medical laws of Wyoming.

The National Institute of Health

The National Institute of Health, under the control of the United States Surgeon General, was created by Congress in 1930 as a result of legislation fathered by Joseph E. Ransdell, former United States Senator from Louisiana, who is now executive director of the Institute. Its function is to ascertain the cause, prevention, and cure of diseases affecting human beings. The act provides for an appropriation of $750,000 and also authorizes the Secretary of the Treasury to accept gifts for research in problems relating to the health of man.

Although the financial support for research work has been small in the past government scientists have made extremely valuable discoveries concerning such diseases as malaria, pellagra, hookworm, tularemia (rabbit fever), undulant fever, psittacosis (parrot fever), typhus, and Rocky Mountain spotted fever.

The Public Health Service, of which the National Institute of Health is a branch, has done excellent work since its creation in 1798. Its qualities of leadership were displayed strikingly in the great fight against bubonic plague at San Francisco, and also at New Orleans fifteen years ago, with the result that never since has bubonic plague threatened the health of our people. In 1905, during the last outbreak of yellow fever in the United States, the Public Health Service conducted a memorable battle against that dread disease, drove it out of the country, and the nation has been free of it ever since.

The decrease in the death rate, which has increased the average life expectancy from forty-nine years in 1900 to fifty-six years in 1925, an increase of 18 per cent, is due to a large extent to the medical profession and the Public Health Service.

Many fields in medicine are open for discoveries by the research workers. Many different laboratories are trying to discover the cause of the common cold, influenza, cancer, and numerous other conditions. The National Institute of Health with the back-of the United States Government and the cooperation of private agencies should be of tremendous value in lowering the death rate of this country and discovering the causes and working out preventive measures for diseases.

Again the United States is faced with the problem of food relief, but unlike the emergency which occurred during the war, the present situation is not due to actual food shortage but rather to poverty brought about by widespread unemployment.

Since "the nation marches forward upon the feet of little children" the present depression may tend to jeopardize the nation's future, unless care is taken to provide ample and suitable nourishment for all growing children, especially those of pre-school age.

In view of these alarming facts, the President's Organization on Unemployment Relief urges that children of needy families be provided with proper food in their homes and that school lunches be provided whenever possible. This organization has also made available several pamphlets on nutrition. One of these by Prof. H. C. Sherman indicates that milk in some form, bread, fruit and vegetables, constitute the minimum essentials of a diet providing adequate nutrition.—J. A. M. A.

"You can not build a Class A Empire out of Class C Citizens," said Lloyd George, expressing his amazement at the alarmingly large percentage of physically unfit developed by British draft boards during the World War.

In activated cereals there is only one part viosterol to 10,000,000 parts of cereal, which makes such a process seem useless.

A STUDY OF THE MEDICAL PRACTICE ACT OF WYOMING*

WILLIAM C. WOODWARD, M. D., LL. M.
CHICAGO

The medical practice act now in force in Wyoming is a product of evolution. The first medical practice act within what is now the State of Wyoming was passed by the territorial legislature at its second session, an act entitled "An Act to Protect the citizens of Wyoming Territory from empiricism and to elevate the standing of the medical profession, approved December 14, 1871." This act made it unlawful "to practice medicine or surgery in any of their departments for reward or compensation, or attempt to practice or prescribe medicine or medicines to any person," without having attended two full courses of instruction and having been graduated at some chartered school of medicine and surgery, or producing a certificate of qualification from some regularly organized medical society. Persons practicing in Wyoming when the act was passed were required to file with the county clerks in the counties in which they respectively resided copies of their diplomas or certificates of qualification, verified by oath. No provision was made, however, for the registration of persons thereafter beginning practice. Any person practicing unlawfully was liable to a fine not less than $50 nor more than $100 and, on conviction of a second offense, to imprisonment for not less than ten nor more than thirty days in addition to the fine. A person violating the act could not lawfully receive compensation for the services he rendered. Surgeons of the United States Army and dentists were excepted from the operation of the act.

Medical Practice Act of 1875

Apparently the medical practice act of 1871 did not produce the desired results. On December 10, 1875, it was repealed and a new act passed[2]. The new act was broader and more strict than the act of earlier date. The medical practice act of 1871 had related to "medicine or surgery in any of their departments." The new act covered medicine, surgery, and obstetrics. Under the new act, certificates of qualification from medical societies were no longer receivable as evidence of professional fitness. Practitioners must have received "a medical education and a diploma from a regularly chartered medical school, said school to have a bona fide existence when said diploma was granted." From this requirement no exception seems to have been made in favor of persons already in practice, for every physician, surgeon, or obstetrician, when about to take up his residence in the Territory or then residing there, was required to file for record, with the register of deeds of the county in which he was practicing, a copy of his diploma, at the same time exhibiting the original, or a certificate from the dean of the medical school certifying to his graduation. The penalties authorized by the new act were more severe than those authorized by the act of 1871. Practicing without having complied with the requirements of the act was a misdemeanor, for which fines ranged from $50 to $500, imprisonment ranged from thirty days to six months, and both fine and imprisonment might be imposed even for the first offense. Filing or attempting to file a diploma or a certificate of graduation that did not belong to the person attempting so to do, and filing or attempting to file a forged affidavit of identification, was a felony, punishable by imprisonment in the penitentiary. Exceptions from the operation of the act were made in favor of persons rendering aid in emergencies where no physician, surgeon, nor obstetrician was conveniently available, and in favor of persons claiming to practice medicine, surgery, or obstetrics in sections of the Territory where no physician nor surgeon having a diploma or a certificate of graduation resided. One of the most important provisions of the new act was that which placed on the police, sheriffs, and constables the specific duty of arresting all persons practicing medicine, surgery, or obstetrics

*From the Bureau of Legal Medicine and Legislation of the American Medical Association. Prepared for presentation at the July 13-14, 1931, annual meeting of the Wyoming State Medical Society but not read due to illness of the author.

without having complied with its requirements and awarded to the officer making an arrest a half of any fine collected.

In 1877, the medical practice act of 1875 was amended[3] by striking out the words whereby the registration of diplomas was required only of a person "when about to take up his or her residence or who now reside here." The omission of the words "when about to take up his or her residence or who now reside here" suggests that the Territory had been troubled by itinerant unqualified practitioners who were beyond reach of the law because they did not reside in the Territory nor intend to take up residence there. The amended act was incorporated in the Revised Statutes of Wyoming, 1887, as Sections 1925-1931, Chapter 1, Title 34.

Medical Practice Act of 1899

The medical practice act of 1875, as amended, remained in force until 1899, when the third medical practice act was passed. This act is the basis on which the present medical practice act was based. The new act[4] marked a further advance in the regulation of the practice of medicine in what had then become the State of Wyoming. It provided for the first time for the verification by a state board of the credentials of persons desiring to practice medicine in the State and for the determination by that board of the professional qualifications of persons unable to produce diplomas evidencing satisfactorily their professional fitness. It provided, too, for the first time, for the revocation of a practitioner's right to practice on proof of his professional unfitness.

The act of 1899 authorized the appointment of a board of medical examiners, by the governor, by and with the advice and consent of the Senate. Only electors eligible for registration under the provisions of the act were eligible for punishment. The duties of the newly created board of medical examiners were substantially those of all of its successors in office, "to pass upon the qualifications and determine the fitness of all persons who may desire to practice medicine, surgery or obstetrics, or who may publicly profess to cure or treat disease, injury or deformity in any manner whatever." The duties of the board today are "to pass upon the qualifications and determine the fitness of all persons who may desire to practice medicine, surgery and obstetrics, or who may publicly profess in any manner to assume the responsibility of the care or treatment of disease, injury or deformity of human beings in the State[5].

Under the act of 1899, the board was to issue certificates to all persons found to be qualified under the law, and such certificates were to be recorded by the holders thereof in the counties in which they respectively practiced, instead of their recording diplomas and certificates of graduation issued by deans of medical schools as theretofore.

Graduates in medicine were required to submit their diplomas to the board of medical examiners for verification as to their genuineness. If a diploma was found to be genuine and to have been "issued by a college of recognized merit, said college being a member of the American Association of Medical Colleges, the homeopathic institutes, or the National Eclectic Medical Association, or any college of similar standing in foreign countries," the board was required to issue its certificate to that effect. The diploma and certificate were conclusive evidence as to the right of the lawful holder to practice medicine. Holders of diplomas, certificates, or other credentials from schools or institutions other than those described above could not lawfully practice until they had passed examinations before the board of medical examiners. The examination covered anatomy, physiology, chemistry, pathology, materia medica and therapeutics, hygiene, theory and practice of medicine, and surgery and obstetrics. Provision was made for the issue of certificates of qualification to certain non-graduates on the basis of years of practice. Students were to be allowed to prescribe under the immediate supervision of their preceptors.

The board of medical examiners was authorized to refuse and to revoke certificates for unprofessional or dishonorable conduct, but the statute did not undertake to define what unprofessional or dishonorable conduct

was. New and important features of the new act authorized the licensing of obstetricians as distinct from practitioners of medicine and surgery and regulated itinerant practice. The act contained, however, no definition of the practice of medicine and surgery. It created an utterly inadequate fund for the payment of the expenses of the board. Unfortunately, perhaps, the new act did not contain those provisions of the act of 1875, which specifically placed on the police, sheriffs, and constables the duty of arresting all persons practicing medicine, surgery, or obstetrics without having complied with the provisions of the law. This may have weakened the sense that such officers ordinarily have of their responsibility for proceeding against those persons who violate the law. They may have assumed, without just grounds, that the newly created board of medical examiners would take over in some mysterious way the enforcement of the act, something that it was entirely beyond the power of the board to do, since the law imposed on it no such duty and since it was without clerical, legal, and inspection forces necessary to enable any state agency to enforce such a law.

Medical Practice Act of 1905

The medical practice act of 1905[6] is properly described in its title as an amendment and reenactment of the medical practice act of 1899. While the general principles of the earlier act were preserved, some of the amendments were more or less far-reaching in character. The new act contained a definition of the practice of medicine. It required all practitioners to be examined by the board of medical examiners regardless of the medical colleges by which they had been graduated, except practitioners who entered the State by reciprocity on the basis of examinations conducted by the board of examiners of other States. The new act made adequate provision for the issue of licenses on the basis of reciprocity. It enlarged somewhat the statutory grounds for refusing and revoking licenses. It shows throughout the influence of cult practitioners on the legislature, and with respect to such practitioners it was eminently fair and forward looking.

Under the medical practice act of 1905 the recognition of such national organizations as the American Association of Medical Colleges, the American Institute of Homeopathy, and the National Eclectic Medical Association was discontinued. In order to be entitled to examination, the applicant had to be a graduate from a regularly chartered college of the system which he claimed to practice, which college "must be recognized by the state board of health or the state board of medical examiners of the State in which it is located." Nothing in the act required that members of the board of medical examiners be doctors of medicine; the new act required only that members of the board of medical examiners be "regularly licensed physicians of the State of Wyoming." For the benefit of cultists, the new act divided the examination in two parts. One part, which all applicants for licenses to practice were required to take, covered those branches of healing in which there is supposedly no room for dogma, namely, anatomy, physiology, chemistry, toxicology, pathology, physical diagnosis, gynecology, the principles of surgery, obstetrics, hygiene, and bacteriology. The other part of the examination covered such branches as were necessary to complete the system of practice to which the applicant professed to be an adherent, and provision was made whereby the board of medical examiners, if no member of the board was an adherent to the particular system that the applicant professed to follow, might call to its aid some competent adherent to that system to conduct the examination. Nothing, it would seem, could be fairer. Certificates issued by the board of medical examiners were to be deemed licenses to practice medicine in all branches in which the applicant was examined.

The medical practice act of 1905 abolished the exception in the earlier act that had permitted medical students to prescribe under the direction of preceptors. It enlarged the grounds on which the board might refuse or revoke licenses, to include conviction of

penal offenses before any court in Wyoming or elsewhere. It made more specific the restrictions on itinerant practice by providing that anyone who maintained an office or residence in Wyoming for not more than three months of any one year should be deemed an itinerant.

The medical practice act of 1905 continued in force without amendment until 1917. Then[7] the members of the board of examiners were increased from three to five, and the method of classification of medical colleges was modified. The act of 1905 had required graduation from a regularly chartered college of the system which the applicant claimed to practice, which college "must be recognized by the state board of health or the state board of medical examiners of the State in which it is located." The new act abolished that requirement and required graduation from a college recognized by the examining board of that system of practice to which the applicant adhered, in the State in which the college was located when his diploma was issued. The act showed further evidence, too, of an effort to satisfy the demands of cultists practicing within the State. Reciprocity under the act of 1905 had been limited to reciprocity with medical examining and licensing boards. The act of 1917 authorized reciprocity with any examining board of the District of Columbia or of any State or territory.

In 1925, the medical practice act of 1905 was again[8] amended. This time the provision that an applicant must have been graduated by a college "recognized by the state board of health or the state board of medical examiners of the State in which it is located," was repealed, and it was provided that the college must have been recognized by the examining board of that system in the State in which the school was located at the time of the issuance of the diploma. This again shows further cult influence, for presumably cult colleges in the various States were not generally recognized by the state boards of health or state boards of medical examiners in the States in which they were located. The amendatory act of 1925 provided for reciprocity with the National Board of Medical Examiners. It again enlarged the grounds on which licenses might be revoked, by making them revocable for "any false statements made to secure licenses," and the making of such false statements it classified as a felony. This act removed from among practitioners who might practice in the State without having been licensed "medical examiners of relief departments of railroad companies while so employed."

While the chiropractic practice act of Wyoming[9] is possibly not properly an amendment to the medical practice act of the State, yet it may fairly be considered as an amendment since it removed from the operations of the medical practice act a considerable number of practitioners. Comment on legislation of that character is hardly necessary here, but it may not be out of place to call attention to the fact that when a state legislature gives official sanction to the practice of chiropractic it imputes to the people of the State a belief that all diseases, including syphilis, gonorrhea, tuberculosis, and other communicable diseases, and insanity, are caused by subluxations of vertebrae and can be cured by the reduction of such subluxations. A state legislature that commits itself to any such doctrine ought logically to go the whole way and to reorganize its health department on a chiropractic basis and to appropriate for the services of chiropractors in order that the inmates of its insane asylums may be promptly restored to sanity and the asylums devoted to other more useful purposes.

In 1929 the medical practice act of Wyoming was again amended[10]. By this act, every person licensed by the board of medical examiners to practice medicine, surgery, or osteopathy was required to reregister with the board annually, paying a fee of $1 a year, and to display his reregistration certificate properly in his office at all times.

By acts[11] passed in 1931, the annual registration fee was increased from $1 to $2.50, and "persons treating human ailments by prayer or spiritual means as an exercise or enjoyment of religious freedom," were exempted from the restrictions of the act, provided, the laws, rules, and regulations relat-

ing to communicable diseases and sanitary matters are not violated.

A study of the history of the evolution of the present medical practice act, from 1871, when the first act was passed, up to the present time, when ignorant and poorly trained cultists are exempted from rational regulation and control and given a licensing board of their own, and christian scientists and others of the same stripe are altogether exempted from the operations of the act, affords interesting and instructive reading. A careful study of it is essential to the intelligent formulation of any future legislation that may be proposed. So also would be a study of the net results of operations under the several acts during the periods when they severally have been in force, but unfortunately time and data for such a study are not available.

Enforcement of Wyoming Medical Practice Act; Law Enforcement Officers and the Courts

The Wyoming Medical Practice Act of 1875[12] made it the specific duty of the police, sheriffs, and constables to arrest all persons practicing medicine, surgery, or obstetrics without having complied with its requirements. As an inducement to such officers to perform the duty imposed on them, the officer making an arrest was entitled to one-half of the fine collected. This seems to be the only provision in the laws of Wyoming whereby the specific duty of detecting, prosecuting, and punishing persons practicing medicine without having complied with the requirements of the law has been imposed on any of the ordinary peace officers of the State. Nowhere does the law of Wyoming impose on the State Board of Medical Examiners the duty of enforcing the medical practice act. The duty of the board is to pass on the qualifications of applicants, to issue certificates to such as are qualified, and on a proper showing, to revoke certificates that have been issued.[13] That it is not the duty of the board to ferret out and to prosecute violators of the law is obvious from the terms of the act defining its duties and from the fact that the law nowhere provides the State Board of Medical Examiners with clerical, legal, and inspection forces such as would be necessary if the board were to undertake the enforcement of the act.

It does not follow, however, because the State of Wyoming has not imposed on its Board of Medical Examiners or on any other named agency of the State the specific duty of detecting offenders against the medical practice act and of bringing them to justice, that the State has not made ample provision for the enforcement of the act. The services of every sheriff, marshal, policeman, constable, and prosecuting attorney are available to the ends named, and the department of law enforcement is available for cooperation with any and all of these officers. The laws of Wyoming make it the duty of every sheriff, marshal, policeman, constable, and other peace officer, promptly and at the time and without warrant, to arrest any person who in his presence shall be found violating any law of the State, and forthwith to take such person before the nearest magistrate having jurisdiction of the offense and to make complaint concerning such offense.[14] This includes the medical practice act of the State as well as other laws. Any sheriff, marshal, policeman, constable, or other peace officer who fails or refuses to do s may be complained of under oath, before the district court of the county within which he exercises his office, by any voter of such county, and if found guilty of such failure or refusal, he shall by the judgment of such court be ousted from office.[15] The sheriff is required to exercise the powers conferred and to perform the duties enjoined upon him by statute and by the common law.[16] The marshal in each city of the first class has the immediate superintendence of police, and the marshal and policemen have the power, and it is their duty, to arrest all offenders against the laws of the State or of the city, in the same manner as a sheriff or constable, and to keep them in the city prison or other place until a trial or examination may be had before proper officers. The marshal and policeman have the same powers as sheriffs and constables in relation to all criminal matters within their respective jurisdictions.[17] Similar authority is given to the marshals and

police officers in certain cities incorporated by special charters. Every constable is required to apprehend, on view or warrant, and to bring to justice, all felons and disturbers and violators of the criminal laws and to suppress all riots, affrays, and unlawful assemblies which may come to his knowledge, and generally to keep the peace in his proper county.[18]

And as if the provisions of the statutes already cited were not sufficient to insure the enforcement of law by sheriffs and county prosecuting attorneys, the legislature in 1923 passed an act making every marshal and county prosecuting attorney prima facie guilty of malfeasance in office and subject to removal, where open and continued violations of any law of the State of Wyoming occur in the county by which said officers are employed.[19]

With a view to coordinating and rendering law enforcement more effective in the State of Wyoming, the legislature of 1921 created a department of law enforcement, to assist, with the approval of the Governor, any other department of the State in the enforcement of all laws, rules, and regulations applicable to or pertaining to such department, and, whenever practicable or possible, to cooperate with county and municipal authorities in the detection of crime and the apprehension of criminals and the preservation of law and order.[20] The department consists of a commissioner of law enforcement, a deputy commissioner, agents not to exceed seven, and a clerical force.[21] The commissioner, his deputy, and his agents have such powers and are authorized to perform such duties as are enjoyed by and required of all peace officers of the State, except that they have no power to serve civil process.[22]

In every organized county in the State there is a county and prosecuting attorney whose duty it is to appear in the district court in behalf of the State and the county, in all indictments, suits, and proceedings wherein the State or the people thereof, or the county, may be a party. It is the duty of that attorney to prosecute or defend against all appeals and writs of error which may be removed from the district court to the supreme court of the State in all cases wherein the county or the State is a party. Furthermore, the county commissioners may employ attorneys to appear and prosecute or defend or assist the prosecuting attorney in so doing in behalf of the people of the State or county.[23] It is the duty of the attorney general to prosecute and defend all suits that may be instituted by or against the State of Wyoming, the prosecution and defense of which is not otherwise provided for by law. He is to represent the State in all criminal cases in the supreme court. The attorney general is the legal adviser of all elective and appointive state officers and of the prosecuting attorneys of the several counties of the State, and shall, when requested, give written opinions upon questions submitted to him by such officers. It is his duty to make a report to the Governor, including such suggestions as shall appear to him calculated to improve the laws of the State.[24]

With such an array of law enforcement talent, it would seem as if the medical practice act of Wyoming should be well enforced and as if such structural difficulties as appear in the act to prevent its enforcement should have been and should be brought to the attention of the legislature by the attorney general, and duly corrected.

The State of Wyoming, however, has a peculiarly difficult problem in protecting itself against unfit practitioners of the healing arts. The State covers an area of almost 100,000 square miles. Its population in 1930, according to the U. S. census, was but 224,597, an average of 2.3 persons to the square mile. In only five cities—Casper, Cheyenne, Laramie, Rock Springs and Sheridan—was the population in 1930 in excess of 5,000. With such a widely distributed small population the difficulty of detecting, prosecuting, and punishing persons offending against the medical practice act is obvious; it is impracticable to maintain throughout the State an adequate number of expert officers specializing in such work, and sheriffs, marshals, constables, policemen, and prosecuting attorneys scattered throughout the State come into contact with violations of the medical practice act too in-

frequently to acquire any great knowledge and experience in handling them.

Work of the Board of Medical Examiners

The Board of Medical Examiners itself has but little work to do. In the past five years, 1926-1930, inclusive, it has examined only twelve applicants. It has licensed sixty-two persons by reciprocity with states and one on the basis of a certificate issued by the National Board of Medical Examiners. During that time it has not revoked a license. The State Board of Medical Examiners is required to examine all persons in the theory and practice of obstetrics who profess to practice obstetrics or midwifery and who are not authorized to practice medicine and surgery, but the number of persons so examined does not appear in any available record. On an average, the Wyoming State Board of Medical Examiners examined 2.4 applicants a year during the past five years; it licensed two persons a year on the basis of examinations, 12.4 a year by reciprocity, and 0.2 a year on the basis of certificates issued by the National Board of Medical Examiners. The total number of physicians licensed to practice medicine in Wyoming on May 1, 1931, was 208.

Income From the Medical Practice Act

On the basis of the figures just stated, fees payable to the board may be experted to average annually as follows: For 2.4 applications for licenses by examination, at $25 each, $60; for 12.4 applications for licenses by reciprocity with state boards, at $50 each, $620; for 0.2 applications for licenses to be issued on the basis of certificates from the National Board of Medical Examiners, at $50, $10; for 208 annual registration fees, at $2.50, $520. Total $1,210. If fees are payable by persons seeking licenses to practice obstetrics, the amount of such fees should be added to the foregoing figures.

While the law creates a "Medical Fund," only a small part of the fees collected by the Board of Medical Examiners goes into that fund. The low provides:

"The fees received by the said Board of Medical Examiners from examination shall be kept in a fund to be known as the 'Medical Fund,' and shall be subject at all times to the warrant of the state auditor drawn upon written requisition by the president and attested by the secretary of the State Board of Medical Examiners, with seal attached, for the payment of any expenses made by said board." Wyoming Compiled Statutes, 1920, Section 2523.

The fees received from applicants applying for licenses by examination have averaged only $60 a year during the last five years, and there is no reason to anticipate an increase in receipts from this source.

The situation has probably arisen from the fact that when the medical fund was created by the Medical Practice Act of 1899[25] all fees were derived from applicants who desired to be licensed after examination. Later, when provision was made for the payment of certain fees for the issue of licenses by reciprocity[26] and for increasing such fees,[27] no provision was made for the payment of such fees into the medical fund. Similarly, when provision was made for the payment of annual registration fees[28] and for the increasing those fees[29] the money so received was not by law allotted to the medical fund. The status of moneys received from fees paid for licenses issued by reciprocity and fees paid for annual registration can be determined only after an examination of the statutes. Unless the statutes clearly make some other disposal of such fees, then the intent of the legislature to incorporate them into the medical fund might be ascertained by reference to the debates that occurred when such fees were first provided for.

Expenses of the Board of Medical Examiners

Information is not available to the writer concerning the expenses of the Board of Medical Examiners. The law[30] authorizes the payment of a salary to the Secretary, not to exceed $25 a month, payable from the medical fund. Members of the board, other than the Secretary, receive $10 a day while actually employed in attending meetings of the board or in carrying out the provisions of the law, but the statute is silent as to the source from which these payments shall be made. The actual traveling and other necessary expenses of members of the board, while engaged in the performance of their duties, are payable out of the medical fund. The board must be under certain other expenses, of course, for printing, stationery,

and postage, and possibly for publication of notices of examinations.

Arrests and Prosecutions

Information is not available concerning the annual number of arrests and prosecutions for violations of the medical practice act, nor concerning the results of prosecutions. Other than the case of State v. Snearly, 107 P. 389, decided by the Supreme Court of Wyoming, February 24, 1910, no case has been found in which that court has been called on to construe the act. If arrests and prosecutions have been reasonably frequent, it is rather remarkable that during the sixty years that have elapsed since the first medical practice act was passed appeals have not been more frequent, particularly since the State is by statute[31] authorized to appeal to the Supreme Court in criminal cases, to review rulings of trial courts even after the acquittal of the defendant.

No estimate is available of the number of persons ordinarily practicing medicine in Wyoming in violation of the law.

On the basis of a recent prosecution an impression got abroad that the court had ruled that the medical practice act of Wyoming was not enforcible because it contained no penalty for practicing medicine without a license. While the medical practice act of Wyoming contains no penalty "for practicing medicine without a license," it does provide penalties for practicing medicine without complying with the provisions of the act. That is, it provides penalties for practicing medicine without possessing the qualifications required by the act, namely, (1) graduation from a regularly chartered college of the system the practitioner professes to practice; (2) giving evidence of the fact that he is of good moral character; (3) presenting his diploma to the State Board of Medical Examiners for verification; (4) appearing before the State Board of Medical Examiners and passing an examination; (5) recording his certificate of having successfully passed an examination, with the county clerk of the county in which he resides; and (6) transmitting to the board of medical examiners annually his signature and address, together with the required registration fee and the number of his registration certificate, and keeping his renewal license certificate at all times properly displayed in his office. Clearly, it seems, the act contains all penalties necessary to procure its enforcement. It is true that there is an error of phraseology in one section[32] which refers to "the practice of medicine as hereinafter defined," whereas the definition of the practice of medicine occurs earlier in the act; that is, in place of the word "hereinafter," there should be inserted the word "hereinbefore." It is believed, however, that this error of phraseology will not interfere with the enforcement of the law by the courts, since the meaning of the law is plain to everyone and the object of courts is to find the true intent of the legislature when the act was passed.

REFERENCES

[1]Laws of Wyoming, 1871, pp. 118-119.
[2]Compiled Laws of Wyoming, 1876, Chap. 83.
[3]Laws of Wyoming, 1877, pp. 83.
[4]Laws of Wyoming, 1899, Chap. 18; Revised Statutes of Wyoming, 1899, Chap. 5, Sections 2189-2206, Div. 1, Title 16.
[5]Wyoming Compiled Statutes, 1920, Sec. 3515.
[6]Laws of Wyoming, 1905, Chap. 45.
[7]Laws of Wyoming, 1917, Chap. III.
[8]Laws of Wyoming, 1925, Chap. 126.
[9]Laws of Wyoming, 1929, Chap. 25.
[10]Laws of Wyoming, 1929, Chap. 96.
[11]Laws of Wyoming, 1931, Chaps. 34, 86.
[12]Compiled Laws of Wyoming, 1876, Chap. 83.
[13]Wyoming Compiled Statutes, 1920, Sections 3515, 3524.
[14]Wyoming Compiled Statutes, 1920. Section 1615.
[15]Ibid. Section 1616.
[16]Ibid. Sections 1615, 1616, 5554.
[17]Ibid. Section 1807.
[18]Ibid. Section 6665.
[19]Laws of Wyoming, 1923, Chap. 53.
[20]Laws of Wyoming, 1921, Chap. 18, Sec. 10.
[21]Ibid. Section 2.
[22]Ibid. Section 9.
[23]Wyoming Compiled Statutes, 1920, Sections 1450, 1451.
[24]Ibid. Section 154.
[25]Laws of Wyoming, 1899, Chap. 18; Revised Statutes of Wyoming, 1899, Chap. 5, Division 1, Title 16.
[26]Laws of Wyoming, 1905, Chap. 45.
[27]Laws of Wyoming, 1925, Chap. 126.
[28]Laws of Wyoming, 1929, Chap. 96.
[29]Laws of Wyoming, 1931, Chap. 86.
[30]Wyoming Compiled Statutes, 1920, Section 3529.
[31]Wyoming Compiled Statutes, 1920, Sections 7539-7542.
[32]Wyoming Compiled Statutes, 1920, Section 3519.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V May, 1932 Number 5

NEWSPAPERS thrive because man's appetite for the new is insatiable. Yesterday's happenings taste flat today and are forced off the front page to make way for today's latest gossip. In medicine, news is as eagerly embraced. Not, however, to satisfy a childish desire for the novel but rather because existing knowledge is never complete enough to satisfy. Our fight against tuberculosis is, at best, a compromise because our diagnostic and therapeutic weapons are still inadequate. We need new knowledge to supplement the old. In fact, every doctor owes to his patient the obligation to keep abreast of the times. David A. Stewart, veteran pioneer of the tuberculosis movement in Canada, recently reviewed advances made in tuberculosis, excerpts of which are here presented.

WHAT IS NEW IN TUBERCULOSIS

The strategy of our campaign against tuberculosis is new. Our old objective was to heal the sick man who came to the doctor of his own accord because he was sick. He seldom came early because he had few symptoms or none. Our new objective is to find the men, the women, and especially the children who have been in contact with the sick man. Management of the individual case is not enough; we now ask, "Who have been *seeded* by this man's infection, and what can we do for *them*?"

The kinds of people we have to diagnose are new. When the doctor goes scouting among contacts he finds that all his decisions are more difficult. He finds also that "the fountain pen is mightier than the stethoscope" because the history of tuberculosis in the family is so important. Probe deeply with your pen; nor be satisfied until you have all the family chest portraits in your X-ray album. Grandmother's "stomach cough," when the X-ray has passed upon it, may explain the indefinite illnesses of half a dozen grandchildren.

New in Diagnosis

A revolutionary change in diagnosis is the comparative eclipse of the stethoscope by the X-ray plate. The stethoscope is still useful but not an instrument of precision. It leaves half of our chest problems untouched. It can but rarely find early tuberculosis and probably never earliest tuberculosis. It cannot follow at all accurately the progress of disease or of healing. Nearly all the questions we need to ask are answered more clearly by the X-ray plate. Of course the X-ray plate must be well made and well read lest blind leaders lead the blind into diagnostic ditches.

Opaque oil, such as lipiodol, is a wonderful help in differentiating from tuberculosis a condition which is considered rare but which is really common, namely, bronchiectasis. This new diagnostic measure has had its full share of misuse and misinterpretation.

The bronchoscope is coming more into use as a chest instrument but has still a broad field to cultivate.

Examination of the sputum is as essential as ever. But now we are not satisfied with a single or a dozen negative findings, for that settles nothing. Now we incubate and grow the germs on potato medium.

The tuberculin test is perennially new, and it is more prognostic than diagnostic. A tuberculin reaction in an adult is something like a vaccination scar. When a young child reacts to tuberculin he should be thoroughly examined and closely watched, and his whole household examined too.

New in Treatment

"Outdoorness" is not a specific for tuberculosis but a natural advantage which all living people should have, especially the chronically sick. Sunlight treatment is still empirical but useful as a general tonic. He who would use it safely must know its indications and contraindications, its

therapeutics, dosage and toxology. Light has been over-praised and abused. It should be applied in measured doses, in well selected cases and always watchfully.

Rest is still the great basis of all treatment of tuberculosis. Fatigue makes ill; rest makes well. Tuberculosis can be cured, but the prices to pay are time and patience, and the foundation is rest. But at last pulmonary tuberculosis has found a "specific." It is collapse or compression of the diseased lung or lungs, which is simply a local application of rest. Artificial pneumothorax is not new but the widening of its scope is. Phrenic paralysis to raise the diaphragm and thoracoplasty to collapse the chest wall are new and their scope widens daily. Artificial pneumothorax is being applied earlier and earlier and later and later. Using it in early stages is not using a sledge hammer to drive a tack, because pneumothorax is not a sledge hammer and any definite focus of tuberculosis is not a tack. Pneumothorax has no features that can be called bad, except the formation of fluid in some cases. The best indication is the lack of contraindications and there are no contraindications. Hemorrhages or expectoration with bacilli or beginning cavitation—even a small cavity —urge pneumothorax.

In late, neglected, or advancing disease the prognosis goes up many points when collapse is possible for the worse lung, and is improved even more proportionally when both of two bad lungs can be collapsed. We now freely apply some collapse to both lungs and even put men with double collapse to work. The more passive measures called *taking the cure* must now be supplemented by active measures of *giving the cure*. "Milk, eggs, and the back verandah" never was a reasonable formula and now is hopelessly obsolete.

New About Complications

We believe now that tuberculosis in the intestine is almost as treatable and curable as tuberculosis in the lung—if we make the diagnosis and apply the treatment soon enough. Early diagnosis of tuberculous enteritis can be made only by the X-ray. The author gives harium meals as a routine in all cases of pulmonary tuberculosis. Treatment is begun early and the old picture is seldom seen except in a patient neglected to sheer hopelessness before treatment is begun. Treatment includes a smooth diet, light therapy, and all general measures made more intensive.

The larynx is the doorstep of the lung. Good treatment for the lung is the best element in treatment of the larynx. Collapse treatment has done much to reduce tuberculosis in the larynx from a major complication almost to a minor one. Add to that rest, silence, and sun applied carefully.

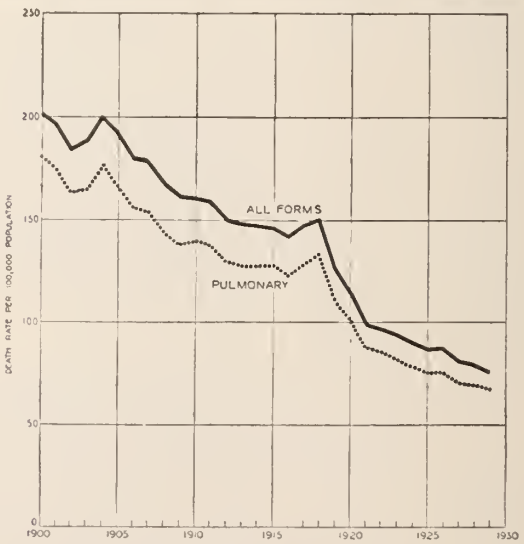
The red terror of hemorrhage is tamed. Half the pharmacopeia has been tried and has failed or done harm. The worst modern mistreatment of hemoptysis is morphine, though a little heroin to *modify* (not stop) cough is valuable. Ice bags on the chest are of the devil. The modern treatment for hemorrhage is rest, reassurance, a little heroin, mild laxatives, bland foods—and the *specific*. That specific is collapse therapy.

New Light on Children

Most important of all is the new light on tuberculosis in children. Our ideas about children lagged a generation behind our knowledge about adults, chiefly because we had a single standard for measuring disease in the adult and the child. But the two types are almost two diseases, so different that they have little more than the causal organism in common. Diagnosis, treatment, and prognosis all differ as between the young and the older. Symptoms in the childhood type are absent or slight and no single symptom is pathognomonic. The physical examination cannot disclose it. But the great *new light* is shed by the X-ray.

"The discovery of the child in tuberculosis opens up a great new continent for exploration. It is in this new continent of childhood that the most fruitful exploration of the anti-tuberculosis forces will be made during the next generation.* * * * What we wish to do for the race must be done for the child. On their behalf we must even learn a good part of our tuberculosis all over again."

What is New in Tuberculosis, David A. Stewart, The Canadian Med. Assn. Jour., January, 1932.



TUBERCULOSIS DEATH RATES
U. S. REGISTRATION AREA—1900-1929



Your Acceptance of *Our* Products

In every field and on every subject there is an outstanding authority. In the field of health, medicine and nutrition, you, the doctors, are the recognized authorities.

Now, through the American Medical Association, you have further safeguarded the health of the public by the establishment of the Committee on Foods. This committee passes upon each food submitted—its manufacture, its ingredients, its food value and the claims of its advertising. To the foods which pass all these tests is granted the seal of the Committee on Foods of the American Medical Association—Your Seal of Acceptance.

FOUR LOAVES OF ZIM'S BETTER BREADS have been awarded this high honor. Your seal proves that our breads have met and passed exacting tests of quality and food value—that our products are nutritious and our bakery sanitary—and that our advertising claims are based on facts.

Feel free to prescribe Zim's products. Write or call us for information, or for samples of these four loaves.

ZIM'S All-O-the-Wheat Bread
ZIM'S TWINS Double Loaf
ZIM'S Twist Loaf
ZIM'S Kew-Bee Bread



Baked by

THE ZIM BREAD COMPANY

COLORADO SPRINGS, COLO.

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. B. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D, Univ. of Colo School of Medicine and Hospitals, Denver

EDITORIAL NOTES

MAY TWELFTH is National Hospital Day. Our state chairman, Dr. Samuel Lilienthal, is effectively organizing plans for the observance of this day. Every hospital in Colorado should cooperate with him to the fullest extent in planning Hospital Day programs and securing the necessary publicity. At no time in the past have the hospitals been so much in deed of healthy publicity as they are at the present time. We have been called upon to do an enormous amount of charity work in face of our decreasing revenues. We are being confronted by the competition of the government in building veterans' hospitals. We have been asked to help solve the problem of nurses' unemployment. All these things need the sympathy and interest of the public. There is no more ethical way to present these matters to the people than through Hospital Day.

Dr. Lilienthal is attempting to arrange with the commercial firms of the city to place hospital displays in their windows, and along this line he has ordered posters from the national headquarters to be used with the displays. He is endeavoring to have the transportation lines in the city carry placards directing the people to visit a hospital on Hospital Day.

This is a gigantic task for one man, and every member of the association should do what he can to help, especially in view of the fact that every institution will be benefited by a successful Hospital Day observance. Call a merchant from whom you make some of your purchases and ask him to cooperate. This will reduce the task of the chairman.

* * *

MEMBERS of the Colorado Hospital Association are fortunate in the opportunities which will be afforded them by the meetings being held in or near Denver during the month of June.

On June 2 and 3, in St. Louis, Missouri, the Mid-West Hospital Association will hold its annual meeting. A worthwhile program, covering many of the current problems of hospital administration, has been arranged. This meeting will be the first occasion on which the Colorado Association has joined the Mid-West Hospital group as an official member, and it is hoped that a large number of Colorado hospitals will be represented at this gathering. The Mid-West Association is considering holding its annual convention in Colorado in the near future, but, if we wish to secure such a meeting, we must first manifest our interest in the Mid-West group.

The Sanatorium Association will meet in Denver on Sunday, June 5, and the National Tuberculosis Association will hold its Annual Meeting in Colorado Springs, at the Antlers Hotel, from Monday, June 6, to Thursday, June 9. From Thursday, June 9, to Saturday, June 11, the Western Branch of the American Public Health Association will meet in Denver.

On Friday afternoon, June 10, the Colorado Hospital Association will hold its quarterly meeting. The speakers en route from the Mid-West Hospital Association meeting in St. Louis to the Western Hospital Association meeting in Salt Lake City, will stop in Denver and assist this meeting. If present plans materialize, the Colorado Hospital Association will have in attendance at this meeting the largest number of nationally known hospital authorities ever present at one of our State meetings.

From Tuesday, June 14, to Thursday, June 16, the Western Hospital Association will hold its annual meeting in Salt Lake City.

(Continued on Page Eighteen)

WORLD'S LARGEST AND OLDEST MAKERS OF SPECIALLY DESIGNED SURGICAL SUPPORTS

-BARCLEY-

Designing service offers doctors a complete line of surgical supports for every need and purpose, designed and made to the exact measurements and individual requirements of each and every patient—men, women and children. Factory, Newark, N. J.

Denver Office: 210-211 Barth Bldg. Phone MA. 0564

FRANCES VILES, Supervising Corsetiere Res. Phone, FR. 2092

Service rendered in patient's home, hospital or doctor's office, any time, day or night. Just phone and we will meet your convenience.

Our friends of the nursing profession will appreciate our stock garments, SMART-FORM, "true to its name." A smart and distinctive combination, girdle, brassiere and support.

AIR TRANSPORTATION

Safety — Comfort — Speed

Waco and Stinson Aircraft

READY TO GO—WHEN YOU ARE



WESTERN FLYING SERVICE

Municipal Airport, Denver. Ph. York 8273



The Porter Sanitarium and Hospital

DENVER COLORADO

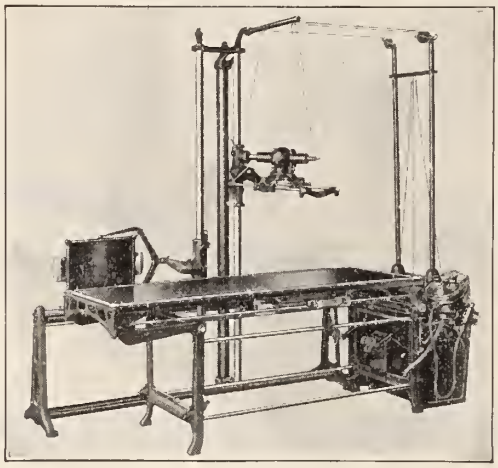
This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

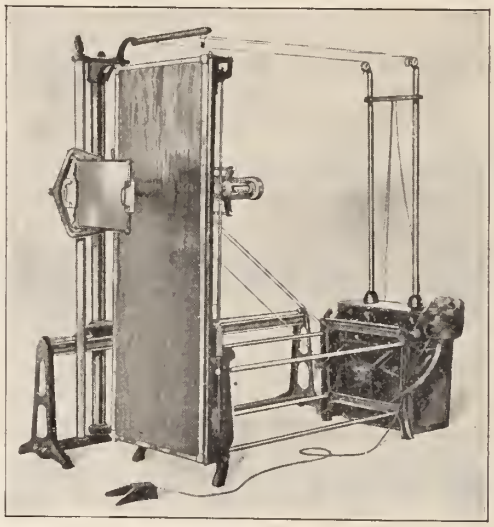
Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721

The MUCKLE X-RAY COMPANY

Has on display, a COMPLETE VERTICAL and HORIZONTAL FLUOROSCOPIC and POTTER-BUCKY RADIOGRAPHIC X-RAY OUTFIT, 5″ 60 M. A. Generator with thirty steps of voltage control over a range of 47 to 88 KV and 0 to 75 M. A.









THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course



NATIONAL METHODIST EPISCOPAL SANATORIUM

THE NEW NATIONAL METHODIST EPISCOPAL SANATORIUM, for the exclusive treatment of Tuberculosis, has already been recognized as one of the finest Tubercular Sanatoriums in America. Colorado's invigorating air and sunshine, flooding every room through specially designed windows, diet and careful nursing, are important factors in the treatment of our patients.

For Rates and Reservations Write or Wire

GUY M. HANNER, SUPERINTENDENT COLORADO SPRINGS

Woodcroft Hospital

PUEBLO, COLORADO

WOODCROFT HOSPITAL was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent

H. A. LaMOURE, M.D., Medical Director F. M. HELLER, M.D., Neurologist and Internist

P. A. DRAPER, M.D., Resident Physician

The

Presbyterian Hospital

MODERN fireproof building—Telephone, hot and cold artesian water, lavatory in every room—Light, airy rooms—Reasonable rates—every facility for scientific diagnosis and therapy—Fully equipped pathological and x-ray laboratories and dietetic department.

East 19th Ave. and Gilpin St., Denver, Colorado

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO

THE ROBINSON CLINIC

The value of the special school for problem children has been proved; both the individual and the group profit by this system. There are many children attending the regular schools who should not be sent there. This group may be divided into four classes—the feebleminded, the organic cases, the problem child and the psychotic.

These children realize they are different from other children and suffer from inferiority feelings. They attempt to satisfy the lowered ego by attracting attention to themselves by any possible means. Because of these actions they become exaggerated school problems, even minor criminals. The only solution to their problem is to send them to schools where they are not exposed to cruel, childish taunts, the other children being like themselves, and so do not develop feelings of inferiority.

The Robinson School was founded with this need in view and offers ideal conditions. The school gives full curricula with an expert teacher, constant medical and nursing care and is located on the outskirts of the city where sunshine and fresh air are constant aids to physical rehabilitation. The rates are reasonable.



CURTISS-WRIGHT FLYING SERVICE

Nervous and Mental Diseases
G. Wilse Robinson, Jr., M.D.
Assoc. Medical Director

G. Wilse Robinson, M.D.
Medical Director
1432 Professional Bldg.
8100 Independence Road
Kansas City, Mo.

Drug and Alcohol Addiction
Paul A. Johnson, M.D.
Internist

SAINT LUKE'S HOSPITAL

Under the Supervision of the Protestant Episcopal Church

MEDICAL, SURGICAL, OBSTETRICAL ORTHOPEDIC and PEDIATRIC SERVICES

225 Beds—32 Bassinets

Fully Equipped for Scientific Diagnosis and Treatment
Roentgenologist and Pathologist Constantly Available for Consultation

Established 1881 Pearl St. at Nineteenth
Denver



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING

Harold Crawford Hill
Medical Director

Holyoke Hospital

Holyoke, Colo.

Jas. H. McKnight M.D. Portia M. Lubchence M.D.

McKnight Hospital

Haxtun, Colo.

Under New Management

PHYSICIANS AND SURGEONS HOSPITAL

Medical
Surgical
Obstetrical

2939 E. COLFAX YOrk 1424

Bessie A. Keener, Supt.

EDITORIAL NOTES

COLORADO HOSPITAL ASSOCIATION

(Continued from Page Ten)

EACH hospital in Colorado has received from the Executive Secretary of the Colorado Hospital Association a questionnaire asking for certain data of a financial nature. This is no attempt on the part of the Association to pry into personal affairs, and we trust that it will not be considered as such.

Very often persons who have returned to their homes after a period of illness in the hospital forget the kind treatment and the skillful and efficient service which enabled them to pass the crisis in their illness and again become well and useful citizens. But such persons, mercenary in nature, cannot help but be impressed by the financial benefits derived from the hospital by the community. Consider how large a number of persons are employed by the hospital, what their earning power is, and how much the supplies consumed by the hospital amount to. Other business concerns present these facts to the public through Chambers of Commerce. Why should not the hospitals do likewise? Will you cooperate and send your answers in to the Secretary? He will make a general summary of the statistics given by the hospitals of the state. No data will be given relating to individual institutions.

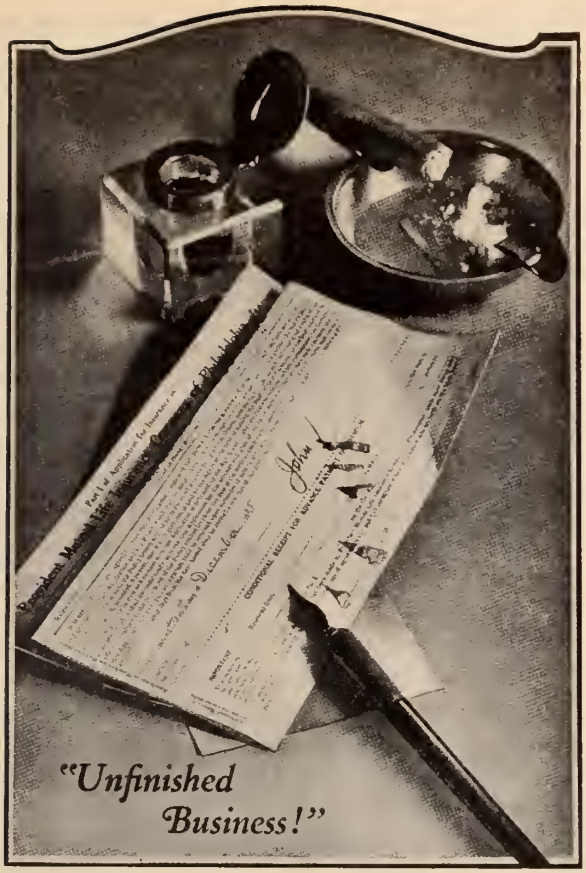
THE VALUE OF THE WOMAN'S AUXILIARY TO THE HOSPITAL

MRS. OLLIE J. SMITH*
COLORADO SPRINGS

In discussing this subject I must confine my remarks to knowledge of service rendered our own Beth-El Hospital during my twenty-nine years as Secretary of the Woman's Board.

Previous to the year 1903, Dean and Mrs. A. C. Peck, then engaged in Evangelical work in Denver, became associated with Mr. and Mrs. William Lennox of Colorado

*Secretary of the Woman's Auxiliary of the Beth-El Hospital, Colorado Springs. Read at the annual meeting of the Colorado Hospital Association, November 7, 1931.



"No man can afford to put off until tomorrow the LIFE INSURANCE he should buy today!"

Provident Mutual
Life Insurance Company of Philadelphia
Founded 1865
PENNSYLVANIA

GEO. N. QUIGLEY
General Agent
1008 Patterson Bldg.
Denver, Colo.

TAYLOR-MADE
Kenlastic
REG. U.S. PAT. OFF.
CORSETS

ARE MADE TO SUIT EVERY NEED FROM THE LIGHTEST WEIGHT GIRDLE TO THE HEAVIER SURGICAL CORSET

ABDOMINAL BELTS WITH CORSET BACK

SPINAL CORSETS WITH PELVIC STEELS AND SHOULDER STRAPS

A NEW KENLASTIC SEAMLESS STOCKING IS MADE WITH EXTENSION HEEL

CHAS. B. E. TAYLOR
ELIZABETH KENDRICK TAYLOR
204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

ARTHUR L. BALDWIN

Certified Public Accountant

TAX COUNSELOR



Fontius Building, Denver TA. 1444

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

Springs. Through intimate association with Mrs. Lennox in this work, Mrs. Peck was led to ask Mrs. Lennox to assist her in establishing a home for homeless children in Denver. This appealed to Mr. and Mrs. Lennox and resulted in the erection of the Belle Lennox Home, now one of the most valued institutions in Denver.

During one of Mrs. Peck's frequent visits to Colorado Springs to talk over the work, she then acting as president of the Colorado Conference Women's Home Missionary Society of the Methodist Church, while out riding one day with Mrs. Lennox, the thought occurred to her, "In this beautiful city where so many sick come from all parts of the world, why not establish a sanatorium under the care of devoted deaconess nurses?"

The idea seemed to appeal to Mrs. Lennox, who said she would call a meeting of women at her home if Mrs. Peck would come down and present the matter to them. A meeting was called and at its close, a motion prevailed that steps be taken toward establishing a Deaconess Sanatorium.

Mrs. Peck then brought the matter before the Colorado Conference Board, which in the fall of 1903 purchased the old Belle-View Sanatorium, then out of use, put it in excellent repair, named it the Colorado Conference Deaconess Hospital, opening its doors in January, 1904, with a capacity of thirty beds and operated by Deaconess Nurses.

A women's board was instituted with Mrs. Wm. Lennox, president; Mrs. Harriet Draper, treasurer, and Mrs. Ollie J. Smith, secretary. This board was called the local board of managers—having complete supervision under the sanction of the Colorado Conference Board. As there were no funds available for its maintenance, this duty devolved on pay received for care of patients and money raised by the local board's efforts.

Sponsored by noble men of the profession, those still active in the service of Beth-El and attendants at your meeting may be found—Drs. P. O. Hanford, G. A. Boyd, F. A. Faust and Z. H. McClanahan.

The Carpenter-Hibbard Optical Co.

1628 Welton Street

Denver, Colorado

THE GOLDEN PLUNGE

OPEN ALL THE YEAR AROUND

The Clean and Sanitary Swimming Pool

For Ladies and Gentlemen

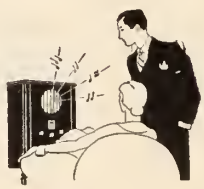
Proper Temperatures Maintained for Any Weather

Thirty Minutes from Denver on Fine Highways

Grant Churches, Manager Phone Golden 266

Aboard
the
ARISTOCRAT

Luxury!



Radio
Reception

In addition, the Lounge Car offers the comforts of detached chairs, inviting divans, observation platform enclosed in glass, writing desk, card tables, a library of current periodicals, late newspapers, soda fountain and a buffet serving soft drinks, sandwiches, coffee, smokers' supplies.

The Aristocrat
(NO EXTRA FARE)

Lv. Denver . . 4:00 p. m.
Ar. Omaha . . 6:30 a. m.
Ar. Chicago . . 7:45 p. m.



Burlington Route

RESERVATIONS

901 Seventeenth St. Phone Keystone 1123
S. R. Drury, General Agent
F. W. Johnson, Ass't General Agent
Denver

The number of patients increased and a demand for a new hospital became imperative. A site was donated by General Palmer. A building committee was appointed, consisting of Mr. Wm. Lennox, president; Mr. E. B. Simmons, secretary-treasurer. Through subscriptions, bonds, and a generous donation from Mr. Lennox the present Beth-El was erected. It opened its doors July 1, 1911, with a capacity of 80 beds, under the supervision of trained nurses.

The Women's Board still continued as local managers, using every money-making effort, rummage and food sales, annual tag days, Christmas Bazaars, sustaining membership campaign, and in emergency, supplications to husbands' pocketbooks.

A guild composed of Protestant women from the various churches was formed. Operating with the local board for several years, the combined funds paid for the elevator at a cost of $3,500. It was installed in June, 1912, and later $500 was spent for repairs.

Owing to the crowded condition of nurses housed in the hospital, a whirlwind campaign lasting one week was instituted by the local board and a men's and women's team working together, and netted a sum of $30,000. A nurses' home was built adjoining the hospital, opening its doors in June, 1917.

The work then becoming too heavy, a men's board was formed and the management passed into their hands in 1919.

Throughout many years the By-Laws of the Women's Board called for the presiding officer's chair to be filled by a woman of Methodist denomination. Among those acting as president, I would especially name Mrs. W. S. Morris and Mrs. W. W. Flora, through whose untiring efforts during many years much valuable service was rendered the hospital. In 1928, when this law was changed to include other denominations, Mrs. A. B. Williams of the First Christian Church was elected as presiding officer, which position she has since most efficiently held.

Superintendents have come and gone. Our present superintendent, Mr. Guy M. Hanner, is now completing his tenth year. The board acts in complete unison with him. The

NURSES
OFFICIAL REGISTRY

Established to Meet the Community's Every Need in Nursing

Hourly Nursing Service.

Under-Graduate and Practical Nurses Provided.

Positions Filled.

Information on all nursing service.

This registry is endorsed by the Colorado State Graduate Nurses' Association and the American Nurses' Association.

KEystone 0168

ARGONAUT HOTEL



(a) Ordinary milks form a hard curd often regurgitated or eliminated.

(b) Soft-curd milk, being very tender, is easily digested and assimilated.

STOMACH CURDS

SOFT-CURD MILK
IS GENUINE "SPECIAL BABY MILK"

And will help solve some of the problems confronting you in establishing the diet of DELICATE INFANTS

Natural whole soft-curd (Holstein) perfectly Pasteurized milk from healthy isolated cows individually tested for their ability to give milk which forms a very soft easily digested curd produced in accordance with methods developed and instructions given by Dr. R. L. Hill, human nutritionist, U. S. Department of Agriculture. Endorsed by the Medical profession and dieticians for feeding infants, invalids, convalescents and cases of weakened digestion where milk is prescribed.

Upon request, descriptive literature and a generous sample of our soft-curd milk will promptly be sent to any member of The Colorado State Medical Society.

THE LEAGUE DAIRY

933 BANNOCK ST. KEystone 3297

A DANGEROUS FALLACY



In western portions of the United States the dangerous fallacy persists that water from the mountains is pure.

The truth is that mountain water is especially subject to contamination —and contamination of a most dangerous kind.

In Wyoming, Colorado, Montana and other mountain states, cattle and wild animals by thousands die in the open, their carrion corpses rotting on hillsides. A freshet comes and this concentrated virulence is flushed into mountain streams. Millions of fish die and decompose—tourists by hundreds of thousands wade in, wash in, and befoul with excreta the water that the cities in the foothills must drink.

The situation is so bad that cities near the mountains must maintain costly plants to 'doctor" the mountain water with Chlorine Gas. While this kills germs, there are serious objections to it. It is non-assimilable in the human system and, over a period of time, works harmful effects.

The chlorine treatment, moreover, can not remove the decayed animal and vegetable matter with which mountain water is literally loaded. This acrid solution of fecal matter attacks the lining of the entire alimentary canal, impairs digestion—throws extra work upon the liver and kidneys. Children so affected become anemic, lethargic, "pep-less." In adults, many disorders of stomach, kidneys, liver and bowels are noted.

The Only Safeguard

PURE ARTESIAN WATER
or Distilled Water

Deep Rock Water Co.

614 27th St. TAbor 5121
Denver, Colo.

board is now enlarged from an original group of ten women to an efficient membership of seventy-seven.

During Mr. Hanner's years, the women's board at his suggestion paid for an up-to-date x-ray equipment, costing $5,000, and equipment and tiling for the sterilization room, $519.80, besides their general obligation of furnishing linens, blankets and dishes. A survey of the year 1923 shows money raised for this purpose amounting to $3,260.18, which has been about the average for the last eight years. This amount of late years was expended chiefly for the purpose of linens, blankets and dishes.

The women's board, finding former methods of raising money obsolete and not effective, has for the past two years confined its activities to one large effort, the annual bazaar, held for two days in the Municipal Auditorium. The net proceeds in 1929 were $3,075.29 and in 1930, $2,919.50.

Time will not permit further report of activities. In closing may I add that aside from financial consideration, equal in value has been the splendid cooperation from the public, through its personal contact in daily life with this Christian band of earnest women workers, gleaned from every church of Protestant faith. The value of a Women's Auxiliary to any hospital cannot be told in words. It is not only the financial help they give to the hospital, but it is the moral support as well, and during the course of a year this will mean a great deal to any hospital because these women are in many different organizations in their own churches and when they attend meetings of the church and the subject of the hospital comes up they naturally are prepared to help promote its interests.

Most Governments Are Inefficient or Corrupt—Some Are Both*

The founders of our government subdivided it into three branches: the administrative, the legislative, and the judiciary. This was done on the theory that each had a dis-

*One of a series of articles on Social Insurance, by Dr. Edward H. Ochsner of Chicago.

SPENCER SURGICAL GARMENTS BELTS for WOMEN or MEN With or Without Ptosis Hernia or Kidney } PADS or Sacro Iliac Support

SPENCER CORSETS of DENVER
218 Empire Bldg. TAbor 6289

Conway's FLORAL SHOP
1064 SO. GAYLORD
PEarl 0622

We make a special study of arranging flowers for the sick room or hospital; giving serious thought to color harmony and scent of flowers.

Your orders will be appreciated

LET
The WESTERN MESSENGER SERVICE



At your service, when you're in a hurry

Phone TAbor 5345

424 18th St.

Run Your Errands Denver Colorado

E. L. GRIFFEY

Successor to
Robt. Gibson, Griffey and Company
Wholesale Woolen Merchants

Denver's Only Popular Priced High Class TAILOR

We Make Clothes from $30.00 to $65.00

Our $50.00 Business Suit Is a Wonder

The suits and overcoats that sell for $65.00 cannot be surpassed anywhere in Quality, Workmanship and Price.

See for yourself the excellent values we have to offer you.

We Are Conveniently Located
1509 TREMONT

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

Office Phone M. 321 Res. Phone M. 4422-R

GEO. LOXAM

Surgical and Invalid Supplies

20 Independence Bldg.
COLORADO SPRINGS, COLO.

Physicians and Surgeons' office supplies, Surgical Braces and Supports, Operating Tables, Surgical Dressings, Enamelware, Rubber Goods, Laboratory Supplies.
Instruments Repaired

Trade discounts to Physicians, Surgeons

COLORADO COLLEGE of PODIATRY

1554 California St., Denver

Bertha DeWolfe, D.S.C., Dean

Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

CUSTOM MADE

NU-BONE

SUPPORTING OR FOUNDATION GARMENTS

For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.

RUBY A. BETTS

22 Lincoln SPruce 7998

tinct function to perform and that they would all act somewhat as checks and balances upon each other. This seemed logical at the time and undoubtedly has many advantages, but our founders did not and could not foresee one of its dangers and one of the abuses to which this division was to be put, namely the practice of sidestepping duty and responsibility. One of the chief governmental in-and-outdoor sports today is "passing the buck," with an "open season" the year round.

In a project involving as many problems as Social Insurance does, all the branches of the government would be involved in its execution—the administrative in administering it, the legislative in enacting the necessary laws, and the judiciary in adjudicating them. Let us then examine briefly how the different branches have deported themselves in the more recent past. Let us start by examining just one typical administrative activity of both the federal and the state governments.

Individual members of the medical profession have repeatedly called attention to the great need of careful study of all delinquents and criminals in our state and federal institutions in order to determine the mental and physical condition of each member of these two classes with a view to their rehabilitation and possible reclamation and yet almost nothing has been accomplished along these lines by governmental agencies. Dr. Frank L. Rector, who recently completed a survey under the auspices of the National Society for Penal Information on health and medical work in all state and federal prisons and adult reformatories, states unequivocally that in not one of these institutions is there a well-rounded and balanced medical and health program. While some of them provide acceptable accommodation for the care of the acutely sick or injured, there is little or no provision for the rehabilitation of the physically handicapped so that they will be better equipped for earning an honest living after their discharge to civilian life.

Just one typical example: On the day Dr. Rector visited the Ohio State Penitentiary, there were 4,475 prisoners within its walls,

DENVER SANITARIUM

—FOR SALE—

Partly Equipped, Beautiful Grounds, Inspiring Mountain View

Accommodates About 50 Patients

GREAT BARGAIN

1618 BROADWAY

Frank F. King
REALTOR

MAin 2333

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

Mothers do not forget to give babies their feedings, though they easily might neglect to give them an added antirachitic agent

Build your baby patients' resistance to Summer troubles through their food— IRRADIATED DRYCO

PRESCRIBE

DRYCO

Made from superior quality milk from which part of the butterfat has been removed, irradiated by the ultraviolet ray, under license by the Wisconsin Alumni Research Foundation, (U. S. Patent No. 1,680,818) and then dried by the "Just" Roller Process.

ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED

"Clinical study reveals a high antirachitic potency. DRYCO produces definite healing in cases of moderate infantile rickets."—(Report of Committee on Foods of the American Medical Association, J. A. M. A., Vol. 98, No. 1, p. 49, January 2, 1932.)

COUPON

Send for samples and new booklet:

"Irradiated Dryco"

The Dry Milk Co., Inc., Dept. C,
205 East 42nd Street,
New York, N. Y.



Increases food value of milk more than 70%

and changes it into a delicious chocolate flavor drink

THE addition of Cocomalt to milk produces a high-caloric, easily digested food drink—palatable even to the fussiest invalid.

It is valuable post-operatively and during convalescence, because it provides *extra nourishment* without burdening the weakened system.

It is especially helpful for undernourished, underweight children—*because each glass is equal to almost two glasses of plain milk.*

Cocomalt is a scientific combination of milk proteins, milk minerals, eggs, sugar, converted cocoa and barley malt. It contains Vitamin D in sufficient quantity to make a definite contribution to the antirachitic potency of the diet.

Because it provides a lot of substantial nourishment at little cost, because it is quickly assimilated, and *because it is delicious*—Cocomalt is recommended as a diet supplement to increase strength and restore vitality. It comes in ½-lb. and 1-lb. sizes, at grocers and leading drug stores. Available also in special 5-lb. can for hospital use.

Free to Physicians

Coupon brings you a trial-size can of Cocomalt, without cost.

Cocomalt

DELICIOUS HOT OR COLD



ADDS 70% MORE NOURISHMENT TO MILK

R. B. DAVIS CO., Dept. 43-E Hoboken, N. J.
Please send me, without charge, a trial can of Cocomalt.
Name .....
Address .....
City ..... *State* .....

of which 156 were hospitalized. There was but one physician on the staff, all other attendants at the hospital were prisoners. While the physician was nominally on a full time basis, he was carrying on an outside private practice as his salary from the state was insufficient to meet his living expenses. What can one part-time physician accomplish with that many patients, a large per cent of whom are physically handicapped, mentally abnormal, and emotionally maladjusted? Ohio is a fair example. In most of the other penitentiaries and in the federal prisons, conditions are no better and in some even worse.

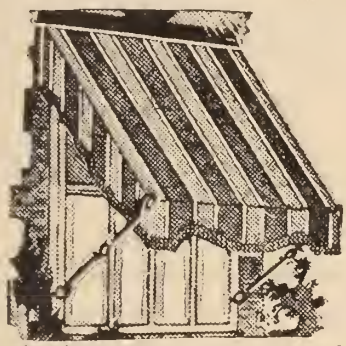
Now let us investigate some of the legislative problems. While nearly every legislative body contains some men of outstanding ability, the great majority of legislators have not the slightest conception of what is required of their position and blindly follow their party bosses who are not generally known for their altruism, their patriotism, or a burning desire to promote the public welfare. One of the worst features of our legislative activities is the fact that a small, well-organized and insistent minority can usually get its measures enacted into law unless some other group is adversely affected by the proposed legislation and makes a counter-attack.

Another bad method of securing legislation is the system of trading. An interesting occurrence of this sort happened in the state of Illinois in 1923. About that time a Chicago mayor was disgracing not only his city and state, but the nation by the slogan, "Hit King George on the Snoot." A free citizen from the corn lands of the state decided that he would like to be sent to the state legislature, took up the battle cry, had just one plank in his platform, namely to make the American language the official language of the state. He was elected. By use of extensive vote trading he secured the passage of the following: Official State Language—An act establishing the American language as the official language of the State of Illinois. (Approved June 19, 1923. L. 1923, p. 7.) Preamble (American language): 1. Be it enacted by the people of the State of Illi-

Modern Ambulance Service *for* Modern Needs



American Ambulance Co.
York 0070 • 1860 Downing St • Denver, Colorado



"A Shady Business Conducted on Sunny Principles"

AWNINGS of Character

BEAUTIFUL—SUAVE—BECKONING

Correctly tailored and installed by exclusive awning makers from your choice of the world's finest fabrics at sensible prices.

American Tent & Awning Co., Inc.

1388 So. Broadway PEarl 8224

SUNLIGHT FOR THE LARYNGEAL TUBERCULOSIS PATIENT

The curative and pain-alleviating power of Sunlight is highly recognized in the treatment of Laryngeal Tuberculosis. Sunlight is now projected directly upon laryngeal tissues with a SOLAR-THERAPEUTIC-LARYNGOSCOPE; a device for condensing and projecting light on diseased portions of the throat and larynx. The operation of this device is simple and enables the patient to see his own larynx and to direct the light on the lesion. Sunlight is a natural antiseptic and healing agent, it helps to maintain the function of the cell and to increase metabolism of the tissues. The cost of the apparatus is reasonable and within the reach of every patient. Write for descriptive literature to:

VERBA LARYNGOSCOPE COMPANY
COLORADO SPRINGS, COLORADO



"TESTED FOR TOXIC REACTION"

SUCCESS DEPENDS UPON your achieving the DESIRED RESULTS. Let the LANE INTRAVENOUS and SUBCUTANEOUS PRODUCTS help you to ATTAIN THIS END.

QUALITY SERVICE ACCURACY

LANE LABORATORIES, Inc.

WRITE FOR PRICE LIST COLORADO SPRINGS, COLO.

24-HOUR SERVICE
AMBULANCE *and*
PULMOTOR SERVICE
DAY AND NIGHT PHONE
Main 830
John E. Wylie, Mgr.
112 Exchange Place, Colo. Springs, Colo.
Packard Invalid Sedan
Regular Equipped Ambulance

"Say it with flowers"

Park Floral Co.

Phones M. 1713-1714 1643 Broadway

TELEPHONE KEYSTONE 8428
QUALITY
F. W. Berbert BERBERT *Julius Berbert*
FIRST
The latest patterns of surgical instruments always in stock.
The most modern manufacturing plant in connection, for special work and repairs of all instruments.
ORTHOPAEDIC APPLIANCES
Elastic Stockings Trusses
Abdominal Supporters
GEO. BERBERT & SONS
228 16th St., Opposite Metropolitan Bldg.

nois, represented in the General Assembly: The official language of the State of Illinois shall be known hereafter as the "American" language.

We come now to what is probably the weakest spot in the government—the judicial interpretation of the laws and their legal administration. Some of the worst features in the administration of criminal justice in particular, in most of the states and sometimes even in the federal courts, result from countless postponements, hair-splitting technicalities, innumerable appeals, and numerous reversals with its resultant delays and miscarriage of justice. Volumes could be written on this subject alone, but one illustration of each method of delaying justice will have to suffice.

A known gunman has been indicted six times in the last eighteen months. Every time he has been released on bonds, he has been involved in new crimes. In spite of all this, he was given thirty continuances on the first indictment. Commenting on this and many similar cases, Henry Barrett Chamberlin, Operating Director of the Chicago Crime Commission, recently made the following statement:

"Repeated postponements in the trial of a criminal case is the most serious obstacle in obtaining a just verdict."

The following is an illustration of how intense legalism and the glorification of technicalities only too often defeats justice. The case is taken from the decision of the Illinois Supreme Court Volume 258. This decision was handed down many years ago, but it still stands. An eleven-year-old girl was dragged into a basement apartment and mistreated by a fifty-year-old man. He was found guilty and sentenced to the penitentiary for five years. The Supreme Court reversed the sentence not because of any

CORRECTIVE FOOTFITTERS

44 South Broadway Phone Spruce 5276

Denver, Colorado

Corrective shoes with double arch supports for the entire family, fitted by expert and experienced foot fitters from an orthopedic standpoint and according to the type of shoe best adapted to each foot. Eliminate your foot troubles by wearing shoes fitted correctly and scientifically. We co-operate with the medical profession through our licensed chiropodists and trained shoe-fitters, as 90 per cent of our fittings are with people having foot ailments.

Special lasts made for abnormal feet. X-ray service at our Denver store. Write us directly for catalogue and details for ordering by mail or for interview with our traveling representative when in your territory. Mail orders given special attention.

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

Are You Listenin'?



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado Ext.

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter



Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen or Silk. Washable as underwear. Three distinct types, many variations of each.

The Picture Shows "Type N"

Storm belts adaptable to all conditions, Ptosis, Hernia, Pregnancy, Obesity, Sacro-Iliac Relaxations, High and Low operations, etc.

Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia

doubt concerning the defendant's guilt, but because the child's first name had been set forth as Rosetta instead of Rosalia in the indictment.

In most major criminal cases in nearly all of the states of the Union the convicted person has three and sometimes even more chances of appeal and one or two chances of executive clemency. Each time he has a chance to find a loop-hole and to make his escape while society is denied an equal chance to protect itself.

Our laws have been so emasculated by mollycoddle reformers that it is almost impossible to convict a criminal and keep him convicted or to convict one or a group of men who maladminister government departments. A case in point. Between the years 1915 and 1919, four real estate experts were paid $2,736,868.00, out of the city treasury. It was common knowledge that the payments were grossly excessive and that a good deal of this money ultimately found its way into the political fund of the administration, and yet the Supreme Court reversed the verdict of the Circuit Court which had found the defendants guilty because it claimed that the prosecution had not proved that any member of the administrative body had personally received any of the money. To the laymen the language of the Supreme Court seems to say that if the administrative officer chooses to look in the other direction when the money is being stolen he cannot be held responsible. I do not presume to criticize the courts in these decisions; the fault may be in the laws, but no one will claim that all this spells governmental efficiency, and that is the point under discussion here. In this connection I wish to quote a jurist who was known for his outstanding fearlessness and integrity and his profound knowledge of the law. He characterized the Municipal and Circuit Courts as the Courts of Original Error, the Appellate Courts as the Courts of Intermediate Speculation and the Supreme Court as the Court of Ultimate Conjecture.

While most of these illustrations have naturally been taken from Chicago and Illinois,



• ARE *YOUR* PRESCRIPTIONS INSPECTED LIKE THIS?

Webster's International Dictionary defines inspection as "A strict, critical, or prysing examination."

Riggs prescription shops, manned by skilled craftsmen, interpret that definition exactly. Every prescription leaving a Riggs Shop is perfect to within the very low tolerance limit set.

This strict inspection, which takes over one-half of the entire working time for a prescription, detects the occasional error of the human element. A Riggs job must be right before it leaves the shop.

Genuine Bausch & Lomb Lenses, of unexcelled quality, ground in Riggs shops according to these strict specifications, assure the exact interpretation of your prescription.

Are your prescriptions inspected like this?

RIGGS OPTICAL COMPANY

There is a branch conveniently near you to serve you with quality optical products.

When we say S.M.A. is "Like Breast Milk" *We mean similar in ALL these ways:*

1. **Fat** - the same, both in amount and in kind.
2. **Protein** - the same, both in amount and in characteristic low curd tension.
3. **Carbohydrate** - the same, both in amount and in kind, namely lactose.
4. **Minerals** - adjusted to the standards set by human milk.
5. **Correlation** - the relationship of food constituents to one another is the same as in breast milk.
6. **Other Physical Characteristics** - Caloric value, pH, depression of freezing point, electrical conductivity, are the same as breast milk.
7. **Buffer Curve** - varies within the same limits as breast milk.
8. **Digestibility** - gastric emptying time is the same as breast milk.
9. **Stools** - similar in color, odor, and consistency to breast milk, and the bacterial flora is predominantly acidophile.
10. **Vitamin A** - regarded by many as the anti-infective vitamin, is present in S.M.A. in adequate amounts.
11. **Uniformity** - Composition of S.M.A. is always the same wherever fed.
12. **Keeping Quality** - S.M.A. keeps and is safe to feed in any climate.
13. **Simplicity** - no complicated formula to harass the busy physician and confuse the mother.
14. **No Modification** - for more than 90% of well infants, S.M.A. requires no modification, although S.M.A. is very flexible.

PLUS:

The Antirachitic Factor - Breast fed infants are customarily given cod liver oil to prevent rickets and spasmophilia. S.M.A. ***incorporates*** enough cod liver oil to prevent rickets and spasmophilia.

For Further Details and Trial Packages Send Coupon Below.





S.M.A. was developed at the Babies and Childrens Hospital of Cleveland and is produced by its permission exclusively by

S.M.A. CORPORATION
4614 Prospect Ave.
Cleveland, Ohio

COPYRIGHT 1932 S.M.A. CORPORATION

What Is S.M.A.?

S.M.A. is a food for infants—derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar, potassium chloride and salts; ***altogether forming an antirachitic food.*** When diluted according to directions, it is ***essentially similar to human milk*** in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

Attach this coupon to your letterhead or prescription blank.

Please send me without obligation:

- ☐ Fourth revised edition of booklet on "Milk Allergy".
- ☐ Trial supply of S.M.A. and Feeding Suggestions.
- ☐ More details on similarity to Breast Milk. 23-52

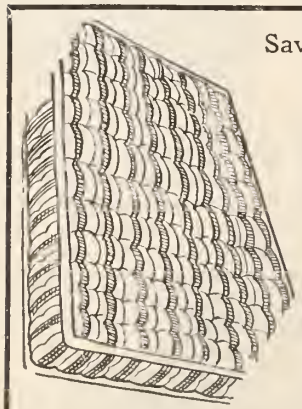
THE SPECIAL CARBOHYDRATE FOOD WHICH COMBATS INTESTINAL PUTREFACTION



LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)
Provides the right soil for the growth of a normal aciduric flora — Nature's method — more effective — more lasting.
Samples and literature on request.
The Battle Creek Food Co.
BATTLE CREEK MICHIGAN

BRONZE TABLETS
BENEFACTOR'S MEMORIAL PLATES FOR HOSPITALS
IN STAMPED BRASS OR CAST BRONZE
BRASS AND BRONZE SIGNS
FOR THE PHYSICIAN
SACHS-LAWLOR
DENVER
ESTABLISHED 1881

Announcing *The Introduction of*
THE STILPHEN AIR CONDITIONING UNIT
Dependable—Simple—Economical
Particularly adapted for Hospitals—Institutions
Write for circulars illustrating and describing this machine
C. A. Stilphen Engineering and Manufacturing Co.
1129 Eighteenth St., Denver, Colo.
KEysotne 0929
Exhaust Fans for Ventilation



Save Two-Thirds
By having us Renovate your old Mattresses, Pillows, Comforts, Feather Beds and Box Springs like new.
We convert your old Mattresses into new "SPRING CENTERS"
Also Upholstering work done very reasonably.
Union Mattress & Pillow Co.
2640 Larimer Street
Denver, Colorado

similar instances in many other places prove that conditions are just as bad. We need but refer to the recent dismissal of five judges for gross inefficiency and corruption in New York City and to an address of Samuel Seabury to the justices of the Appellate division of the Supreme Court of New York in which he said, "It is for you to say whether the magistrates' courts shall be turned into bargain-counters where justice is bought and sold, when political leaders are brokers dealing in influence." In smaller governmental units the corruption and inefficiency is, of course, on a smaller scale, but in many instances it is there just the same. One writer in a popular magazine sizes up the whole situation in the following words: "From Teapot Dome to our latest Municipal Court scandals we have seen enough of political and public malfeasance to believe almost anything of our law-makers, courts, and public guardians."

We have devoted this much space to the discussion of governmental inefficiency because it is fundamental. If we have demonstrated that most governments are inefficient or corrupt and that some are both and that there is no likelihood of marked improvement in the immediate future, then we have proved that it would be unwise and unsafe to entrust so vital a function as the almost universal control of medical practice to governmental supervision and control. If one were to record all the evidence of inefficiency and corruption which occur in all the governmental units of this country in one year alone it would require volumes instead of a few short articles.

The purpose of these articles, however, is not so much to give detailed information as to arouse the allied professions of medicine and dentistry and through them the general public to the impending danger.

(The next two articles will show how the quality of medical services deteriorate under Compulsory Health Insurance).

COMPLETE MALPRACTICE PROTECTION

By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE
AETNA LIFE
INSURANCE CO.
Fred E. Breisch, Manager
529 Midland Savings Building
KEystone 6205

COLORADO PHOTO COMPANY

Commercial and Art Photographers



QUALITY AND SERVICE
"We Never Miss"

437 17th ST. MAin 5671
DENVER, COLO.

BARGAIN GOLF

NOT A NEW GAME— JUST **NEW PRICES** OUR INTRODUCTORY OFFER

THINK OF IT!
An 'Annual" for $7.50
Or Week Days 25c, All Day
Or Saturday, Sunday and Holidays 35c, All Day
An 18-Hole Course and NO WAITING

You have wanted a place of seclusion to RELAX from the cares of the day—

HERE IT IS

PRATT RECREATION Inc. RANCH

Out East Colfax—See Sign 7 Miles East of Fitzsimons Hospital; Turn 1 Mile South

PHONE AURORA 347-R3

Horseback Riding Polo

P. S.: Let the Kiddies Ride Horseback While You Golf



Nature Made It!

ORIGINAL
MANITOU
Sparkling
Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado



PHOTOGRAPHS
The Best at Reasonable Prices
Ph. KEystone 4450 for Appointment

La Fayette Fults
Studios
522 Tabor Theatre Bldg.
Denver

Dr. Bloodgood Addresses An Important Letter to the Medical Profession.

Dear Colleagues:

Having had correspondence with more than 900 obstetricians, Fellows of the American College of Surgeons, and with others in the medical profession, with a large number of women, officers or members of national societies or associations of women, and having received, studied and published their views in the American Journal of Cancer, 15-1577-1585, July, 1931, it seems proper to communicate with obstetricians not Fellows of the American College, with gynecologists who are largely responsible for diagnosis and treatment, with pathologists who are responsible for the microscopic diagnosis of tissue removed previous to treatment, and with the increasing number of specially trained radiotherapeutists.

I am enclosing a brief statement for the press, by a cancer student, based upon recent survey, and if they are still available, two reprints from the American Journal of Cancer. The object of the Amanda Sims Fund for the Protection of Mothers from Cancer by Correct Information, is to create a demand by mothers for proper postnatal care and semi-annual pelvic examinations. The first object of this letter is to reach as many members of the medical profession as possible, to call their attention to the fact that it appears to be a majority opinion that the best protection for mothers against cancer of the cervix is semi-annual pelvic examinations. It appears that previous to the educational work less than five per cent of mothers were so protected. By writing to more than one thousand mothers we have already increased this protection to almost forty per cent. The Surgeon General of the Army reports that among 2,532 pelvic examinations just reported in the army, nine early cancers of the cervix were discovered, and sixty-three cases found with one or more defects.

The majority of authors who have observed cancer of the cervix during the past fifteen years report that early cases are less than two per cent, that the increase in detection of early cases is not rapid. The

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

FURS

REPAIRING :: REMODELING

Fur Garments Made to Order

Large Selection of Silver Fox Scarfs



Andre De Vajda

FURRIER

1525 TREMONT ST.

Denver, Colorado



The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

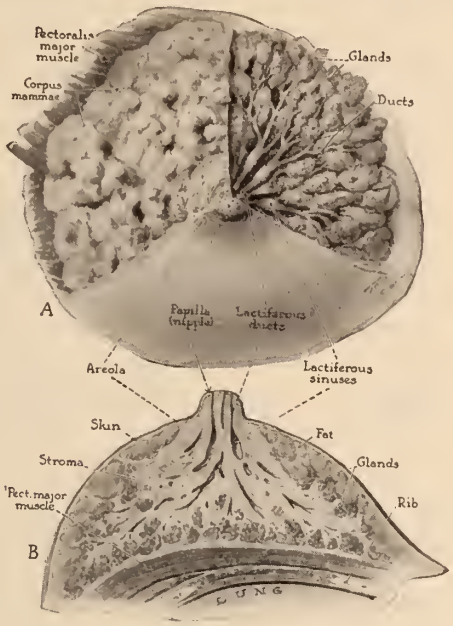
WINDSOR-MEADOW GOLD

MAin 5131

chances of curing an early cancer of the cervix by radium should be seventy per cent. There is some difference of opinion as to whether surgery offers as much or more. The actual five-year results after radium treatment for cancer of the cervix in all stages is less than thirty per cent. The majority of obstetricians and gynecologists, although they believe in the value of semi-annual examinations of the pelvis in mothers, do not always advise it. The majority of mothers passing through a diagnostic survey under the care of a single physician or a clinic, or in a hospital do not receive a pelvic examination unless there are symptoms. The majority of mothers entering a public clinic, dispensary or the private rooms or wards of any hospitals, and who may be there hours, days or weeks, for conditions other than pelvic, are not advised to have this examination. The majority of women coming under observation of the medical profession with cancer of the cervix are not only in the late stage, but they have not received a pelvic examination for years, many not since the birth of the last child. In addition, the advice to all women to report for examination the moment they observe any symptoms that are unusual in regard to the menstrual period, or its reappearance after the menopause, has never been given the same publicity as the correct information in regard to the symptoms which may suggest cancer in other parts of the body. We now know that signs and symptoms in cancer of the cervix of the womb are late and not early symptoms. The cervix, in this respect, is identical with the skin or lining of the mouth. There is first a local spot or condition that is not cancer which gives no symptoms or signs except to sight or touch. For this reason the precancerous lesions of the cervix can only be brought to view by the semi-annual pelvic examination.

I am more and more convinced from this study which has now been going on over one year, that the ultimate solution to the problem, the absolute protection of women against cancer of the cervix by semi-annual pelvic examination, depends upon the medical profession in each locality. The leaders

ANATOMICAL STUDIES



MAMMARY GLANDS
A. Dissection of Lactating Breast.
B. Relation of Breast to Chest wall.

for the Practitioner

Sets of Anatomical Studies furnished to physicians upon request.

CAMP

Physiological Supports Scientifically Designed

S. H. CAMP & COMPANY
Manufacturers
JACKSON, MICHIGAN

Chicago Merchandise Mart
New York 330 Fifth Avenue
London 252 Regent St. W.

MRS. J. M. BLINN PFISTER

wishes to announce
the opening of her store at 1515 Glenarm
with a full stock of

CAMP

SURGICAL AND SEMI-SURGICAL SUPPORTS

Maternity Post-Operative
Convalescing and Ptosis Supports
Sacro-Iliac Binders Orthopedic Back Splints
Abdominal Belts

Adjusting and Remodeling

Telephone MAin 7530

MRS. LEONA S. HANSEN
MISS ELSIE M. WERNER
Corsetiere

MENTION COLORADO MEDICINE

Graduate School *of* Medicine
THE TULANE UNIVERSITY
OF LOUISIANA
Approved by the Council on Medical Education of the A. M. A.
Post graduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

L. D. DUTCHER
Phone 2995-R
DUTCHER
Ambulance Service
BALLOON EQUIPMENT
INVALID SEDANS
315 West 4th Street Phone 390
PUEBLO

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5111
DAY STORAGE $5 PER MONTH
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

Fine Upholstered Furniture Made to order
Furniture repairing of all Kinds
Henry Meyer
Upholsterer and
Furniture Manufacturer
DENVER
538 East 17th Ave., at Pearl St.
Phone TAbor 4087

should be the Fellows of the American College of Surgeons—obstetricians and gynecologists; they are in the best position to bring together all members of the medical profession practicing obstetricians and gynecologists who are not yet Fellows of the College. Ultimately the cancer clinic in the standard hospital will be the local unit not only for the education of the community, but for the preparation of the proper performance of the semi-annual pelvic examination, the correct diagnosis of those cases in which this examination indicates the use of the microscope and for the proper application of radium, or the choice between radium and surgery.

The Amanda Sims Fund stands ready to aid as far as its financial ability permits; however, those of us who have been carrying on this investigation feel convinced that ultimately it will become a local problem, and that the educational effort will be carried on by the American Society for the not die of cancer beginning in the nipple. Association, the American College of Surgeons, the state, city and county medical societies, the boards of health, the National Institute of Health, the local and national organizations of women.

There is sufficient evidence to feel that cancer of the skin and mouth no longer threaten any informed individuals who seek and select a family physician and dentist while well. A beautiful woman never gets cancer of the skin, because she pays attention to the first blemish. No one whose teeth are under the care of a competent dentist should develop cancer of the mouth. Properly informed women have the best assurance against death from cancer of the breast. The cures of cancer of the bone have increased from less than four to more than twenty-five per cent by educating the people to have an x-ray examination the moment there is an injury to or warning from a bone or joint.

This letter has been sent to you because we desire the benefit of your written opinion on this subject.

Sincerely yours,
Joseph Colt Bloodgood.

MANY DOCTORS ARE PLEASED

with the

Economy, Excellence, and Expediency
which characterizes the orders for
STATIONERY and OFFICE FORMS
placed with

THE MILES & DRYER PRINTING COMPANY
1936-38 Lawrence St. DENVER Telephone KEystone 6348

J. B. Martina Mosaic Company

TERRAZZO—MARBLE MOSAIC

The floors and sanitary cove base highly recommended for hospitals and institutions

3412 W. Hayward Place GAllup 4697 KEystone 1037 Denver, Colo.

Thirty-nine years in the same location

SELLING HIGH-GRADE

COAL, WOOD
GRASS SEED
FERTILIZER

Honest Weight *Prompt Delivery*

The DeSellem Fuel and Feed Company

PH. TAbor 3205

3463 Walnut St. Denver, Colorado

Our New Service Department

Dear Reader:

Colorado Medicine together with the Co-operative Medical Advertising Bureau (a department of the American Medical Association) of Chicago have established a Service Department to answer your inquiries about pharmaceuticals, surgical instruments and other manufactured products such as equipment, supplies, etc., which you may need for your office, home, hospital, sanitarium, or automobile.

We invite and urge you to use this service. It is absolutely free and entails no obligation.

Between the offices of Colorado Medicine and the Co-operative Bureau we are equipped with catalogs and price lists of all manufacturers, and can supply the information you desire by return mail.

Whenever possible, such products are advertised in our pages. But perhaps you want a certain instrument or other product which is not advertised, and you do not know how or where to secure it. Colorado Medicine will give you the information.

Our address is 658 Metropolitan Building, Denver. We want to serve you.

COLORADO MEDICINE.

WANTAD

DOCTOR'S practice and office equipment. Owner died leaving successful practice of 30 years. Good opening. Mrs. Lunette B. Evans, 313 Prospect Street, Fort Morgan, Colorado.

WANTAD

WANTED—Eye, ear, nose and throat specialist, able to do general practice, wants assistantship to busy physician and surgeon. Box 1, Colorado Medicine.

PHYSICIANS' EXCHANGE

Salaried appointments for Class A physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoes National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member the Chicago Association of Commerce.

COLVIN BROTHERS

MEDICAL BOOKS

Ph. MA. 3866. 221 Republic Bldg., Denver

NEW BOOKS:

Marriott—Infant Feeding
Ballenger—Ear Nose and Throat
Buckstein—Peptic Ulcer X-Ray
Crossen—Diseases of Women
Sante—Chest X-Ray

DENSIN TOOTH POWDER

A Natural Dentrifice

Serves Three Purposes:
MOUTH WASH
GUM HARDENER
TOOTH CLEANSER

A powder that should please the most discriminating.

For sale by all druggists—thirty-five cents

SNYDER LABORATORIES

228 E. & C. Bldg. Denver, Colo.



AMERICAN BOARD FOR OTO-LARYNGOLOGIC EXAMINATIONS

The American Board for Oto-laryngologic Examinations will hold an examination in New Orleans, May 9 to 13, 1932, at the time of the meeting of the American Medical Association.

Applications for this examination can be procured from the Secretary, Dr. W. P. Wherry, 1500 Medical Arts Building, Omaha, Nebraska, and should be sent to him at least sixty days before the date of the examination.

IMMATERIA MEDICA

Patient: "I had an awful nightmare last night."
Doctor: "Yes, I saw you with her."

* * *

Teacher was explaining to a class of small girls and boys the meaning of the word "collision."

"A collision," she said, "is when two things come together unexpectedly. Now, can anyone give me an example of a collision?"

The red-headed, cross-eyed boy in the far corner of the room yelled: "Twins."

* * *

If the services of a plumber tinkering around a broken water pipe in a home are worth $4.00 an hour, what is the value of the services of a physician ministering to a broken body?

* * *

Maid (to young man caller): "I'm sorry, but she said to tell you she isn't at home."

Young Man: "Well, tell her I'm glad I didn't call."

* * *

City Banker (visiting the farm): "I suppose that's the hired man?"

Farmer (who has visited banks): "No, that's the third vice president in charge of cows."

* * *

The chorine who always keeps her costume pressed so neatly while traveling, now does so by packing it between a couple of fifty-cent pieces.

* * *

"It's Joe and he says they finally got him for selling nip and tuck liquor."

"What kind is that?"

"One nip and they tuck you in bed."

* * *

Prison Warden: "I've had charge of this prison for exactly ten years. We're going to celebrate. What kind of a party would you suggest?"

Prisoner: "Open house."

* * *

"What is the Latin for 'He pretended he wanted to ride?'"

"Hitch, hike, hokum."

* * *

Tourist (looking at Venus de Milo): "One thing those old Greeks had on us; when they talked disarmament, they disarmed."

* * *

Wife (after accident): "Where am I? Am I in heaven?"

Husband: "No, dear, I'm still with you."

* * *

Teacher: "Anonymous means without a name. Now give me a sentence using this word."

Pupil: "Our new baby is anonymous."

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources — We Insure Only Ethical Practitioners

David Jacobs, Manager — *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. — Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.

BALTIMORE, MARYLAND

W.T. ROCHE

Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 — YOrk 0901

18th at Gilpin

No Gold Brick Salesmen Admitted

READERS of Colorado Medicine have a right to trust the advertisements as much as the editorials and news.

Therefore, we carefully investigate the firms before we make contracts with them. We do not accept advertisements of medicinal products not approved by the Council on Pharmacy and Chemistry of the American Medical Association. We do not print advertisements of any nature that are not believed to be entirely reliable.

Every reader may safely say: "I saw it advertised in Colorado Medicine so I can safely purchase and prescribe it."

A lumberman who bought a "gold" brick prided himself on the fact that he never read newspapers. Read our advertisements and DON'T buy "gold" bricks.

Announcing

Surgeons' Operating Garments — Nurses' Uniforms

THE TUXALL CORP.

exclusive

New Styles in Professional Garments — Hospital Work Uniforms

Denver made goods for Rocky Mountain Patrons

3704 Downing St. — TAbor 9093 — Denver, Colo.

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

AN ADVANCE IN PARENTERAL
Liver Therapy
A REFINED AND MORE CONCENTRATED SOLUTION OF LIVER EXTRACT FOR
Intramuscular Injection

BY the new process employed in the Lederle Laboratories the volume per dose has been reduced 40 per cent and the substances responsible for undesirable reactions largely eliminated.

The new Lederle parenteral Solution of Liver Extract (Fraction G of Cohn) marks a distinct advance in Liver Therapy, making intramuscular administration with all its advantages practical for all cases where this extract is indicated.

ADVANTAGES OF INTRAMUSCULAR OVER ORAL ADMINISTRATION OF LIVER EXTRACT

1. *Certain Dosage.*
2. *Reticulocyte response occurs earlier.*
3. *Economy.*

Solution Liver Extract (*Lederle*) *Refined and Concentrated for intramuscular injection.* Each vial contains the material obtained from 100 grams of liver in three cubic centimeters.

Distributed by
HEALY & OWENS
1400 Larimer Denver, Colorado
LEDERLE LABORATORIES INC.
New York

MERCUROCHROME
220 SOLUBLE
in
OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

PRESCRIBE
KNOX
SPARKLING GELATINE
IN **DIETS** FOR **DIABETES**
LIQUID *and* **SOFT FEEDING**
REDUCING and ANEMIA

KNOX is pure, granulated plain gelatine with 85-86% protein content. Free from flavoring, coloring or sweetening—therefore combines safely and perfectly with fruits, vegetables and other foods for all diets.

KNOX *is the real Gelatine*

Data and Recipe Books on Request
KNOX GELATINE LABORATORIES, 418 Knox Ave., Johnstown, N.Y.

PENCOL
DRUG STORE

Denver's Leading Druggists

504 E. COLFAX YOrk 8300

BIOLOGICS—OXYGEN
PRESCRIPTIONS

At Night Call FRanklin 0041-W

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of
ORTHOPEDIC
APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.
Phone KEystone 2702
Denver, Colo.

TRADE-MARK

PYRIDIUM

COUNCIL ACCEPTED

Phenylazo-Alpha-Alpha-Diamino Pyridine Mono-Hydrochloride (Mfd. by The Pyridium Corp.)

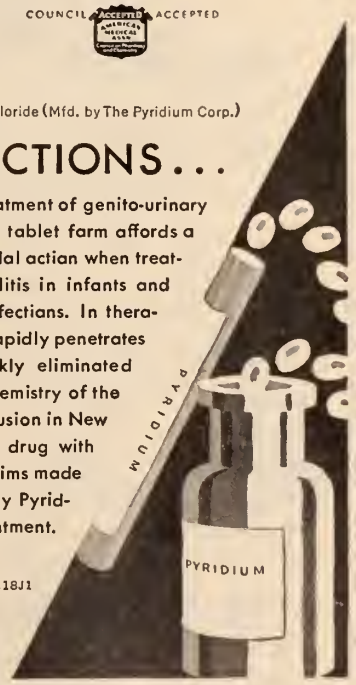
FOR URINARY INFECTIONS...

An effective germicide used extensively in the treatment of genito-urinary infections. The oral administration of Pyridium in tablet form affords a quick and convenient method of obtaining bactericidal action when treating Gonorrhea, Prostatitis, Pyelitis of Pregnancy, Pyelitis in infants and children, Cystitis and other chronic or acute urinary infections. In therapeutic doses Pyridium is non-toxic and non-irritating. It rapidly penetrates denuded surfaces and mucous membranes and is quickly eliminated through the urinary tract. The Council on Pharmacy and Chemistry of the American Medical Association has accepted Pyridium for inclusion in New and Non-Official Remedies. You can therefore prescribe this drug with full confidence that its therapeutic action will conform to the claims made for it. Avoid substitutes. Your prescription pharmacist can supply Pyridium in four convenient forms: as tablets, powder, solution or ointment.

Write for literature

B18J1





MERCK & CO. INC.
MANUFACTURING CHEMISTS RAHWAY, N.J.

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.

When impartial and dependable advice is required in connection with any insurance policy or problem,

See

Max S. Schayer
Insurance Counselor

535 EMPIRE BLDG
TAbor 5563 KEystone 6414



ALL FOOT TROUBLES RELIEVED BY CORRECTIVE SHOES
LADIES & GENTS SHOES
RIDING BOOTS
FIELD BOOTS
REPAIRING DEPT.
Arch Supports and Foot Appliances
Casts and Lasts Made for Abnormal Feet

EXTENSION SHOES MADE TO ORDER


Before


After

Correspondence or inquiries invited.

W. H. WEBB SHOE CO.
1410 STOUT ST. KEystone 8373

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO-ENGRAVERS AND MAP MAKERS
KEYSTONE 3634 -830- 18TH ST.
DENVER, COLO.



PRESCRIPTION PHARMACISTS

to the members of the

COLORADO STATE MEDICAL SOCIETY

City	Name and Address	Telephone
Denver	R. K. ANTHONY, 4901 Lowell Blvd.	GAllup 0294
Denver	BAIRD Pharmacy, 3850 Federal Blvd.	GAllup 0549
Denver	BROTHERS Pharmacy, 5001 E. Colfax	YOrk 2171
Denver	ESTHER Drug Co., 2335 E. 28th Ave.	YOrk 0296
Denver	IMPERIAL Pharmacy, 319 16th St.	KEystone 1550
Denver	McGOWAN Pharmacy, 801 Colo. Blvd.	FRanklin 5391
Denver	MUDGE Pharmacy, 3801 Walnut St.	TAbor 4523
Denver	SIXTH AVE. Pharmacy, 600 E. 6th Ave.	SPruce 9706
Englewood	JOHN T. HEPPTING, 3398 S. Bdwy.	Englewood 744
Littleton	LITTLETON Drug Co., Littleton	Littleton 133

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically
Special classes for Nurses.

Limited Class Now Forming
Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R — *Elna Hoagland, Pres.* — 3762 High St.

TOY TROPICAL FISH

40 Varieties — Reasonably Priced

WATER LILIES POND SUPPLIES
FANCY BREEDING GOLD FISH

Ship anywhere; write for price list.

A Full Line of Aquariums, Aquatic Vegetation and Supplies

CHARLES T. GORE

4524 Decatur St. — GAllup 0410

Duplicate Keys, 25c — Lock Repairing
Key Fitting

GREEN NOVELTY SHOP

(Opposite Court House)

LAWNMOWERS SHARPENED BY MACHINE

Boston, Pekingese and Other Breeds of Puppies

Dog Collars, Harness and Supplies

Phone KEystone 3031 — 317 16th Street

ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company 35
Ambulance Service Co. 30
American Ambulance Company 29
American Medical and Dental Association Cover 2
American Tent and Awning 29
Art Cast Products 5
Baldwin, Arthur L. 20
Barcley Corset Shop 11
Battle Creek Food Company 34
Berbert, George & Sons 30
Betts, Ruby A. 26
Boulder-Colorado Sanitarium 15
Camp, S. H. and Company 39
Carlson-Frink & Company Cover 4
Carpenter & Hibbard Optical Company 21
Chicago, Burlington & Quincy R. R. 22
Children's Hospital 13
Cocks-Clark Engraving Company 42
Cocomalt 28
Colorado Artificial Limb Company 46
Colorado College of Podiatry 26
Colorado Photo Company 35
Colorado Springs Psychopathic Hospital 12
Colvin Brothers 42
Conway's Floral Shop 25
Corrective Foot Fitters 31
Cragmor Sanitarium 16
Cutter Laboratory Cover 4
Daniel-Smith Engraving Company 46
Deep Rock Water Co. 24
Denver Ice and Cold Storage 7
Denver Metals Foundry 4
Denver School of Swedish Massage 47
DeSellem Fuel and Feed Co. 41
De Vajda, Andre 37
Dry Milk Co. 27
Dutcher Ambulance Service 40
Garden Farm Dairy 37
Glockner Sanatorium 13
Golden Plunge 21
Gore, Chas. T. 47
Graduate Nurses' Club 23
Green Novelty Shop 47
Griffey, E. L. 25
Holyoke Hospital 18
Hynson, Westcott & Dunning 44
Jones, William 45
King, Frank F. 27
Knox Gelatine 44
Lafayette-Fultz Studio 36
Lane Laboratories 29
League Dairy 23
Lederle Laboratories 44
Lilly, Eli & Company Insert between 4 & 5
Lilly, Eli & Company 8
Lorton, Howard, Inc. Cover 3
Loxam, George 26
Manitou Mineral Water Company 36
Martina, J. B. 41
McKnight Hospital 18
Mead, Johnson & Company 6
Merck & Company 45
Meyer, Henry 40
Miles & Dryer Printing Company 41
Monarch Metal Weather Stripping Co. 43
Mount Airy Sanitarium Cover 1
Muckle X-Ray Company 12
National Methodist Episcopal Sanatorium 14
Old Homestead Bread Company 2
Park Floral Company 30
Parke, Davis & Company 3
Pencol Drug Store 45
Pfister, Mrs. J. M. Blinn 39
Physicians and Surgeons' Hospital 18
Porter Sanitarium 11
Pratt Recreation Ranch 35
Presbyterian Hospital 15
Prescription Pharmacists 47
Provident Mutual Life Insurance Co. 19
Riggs Optical Company 33
Robinson Clinic 16
Roche Ambulance Service 43
Sachs-Lawlor 34
St. Joseph's Hospital 17
Saint Luke's Hospital 17
Schayer, Max S. 46
Shirley Garage 40
Shirley-Savoy Hotel 31
S. M. A. Corporation 33
Snyder Laboratories 42
Spencer Corsets 25
Squibb and Sons 1
Stilphen Engineering Co. 34
Storm, Katherine L., M.D. 32
Taylor, Charles B. E. 19
Therapeutic Bath Institute 44
Trowbridge Training School 26
Tulane University 40
Tuxall Corporation 43
Union Mattress and Pillow Company 34
United States Fidelity & Guaranty Co. 43
Verba Laryngoscope Co. 29
Webb Shoe Company 46
Western Flying Service 11
Western Messenger Service 25
Western Newspaper Union 20
White Flushing Valve Co. 32
Windsor Farm Dairy 38
Woodcroft Hospital 14
Zim Bread Company 9



Limited Edition of George Washington Bed Now Locally Displayed



Sponsored by General Washington's Great-Great-Great Niece

FEATURED in connection with the George Washington Bi-Centennial celebration, this bed is limited to a series of two hundred, of which two are allotted to Denver.

It so excellently exemplifies all of the details of the original Mount Vernon bed that it has been personally sponsored by Miss Anne Madison Washington for its authentic spirit and charm. Miss Washington, great, great, great niece of George Washington, has devoted lifelong study to Mount Vernon and its Colonial furniture and was appointed by the United States Government to furnish the replica of Mount Vernon, exhibited at the nternational Colonial Exposition in Paris.

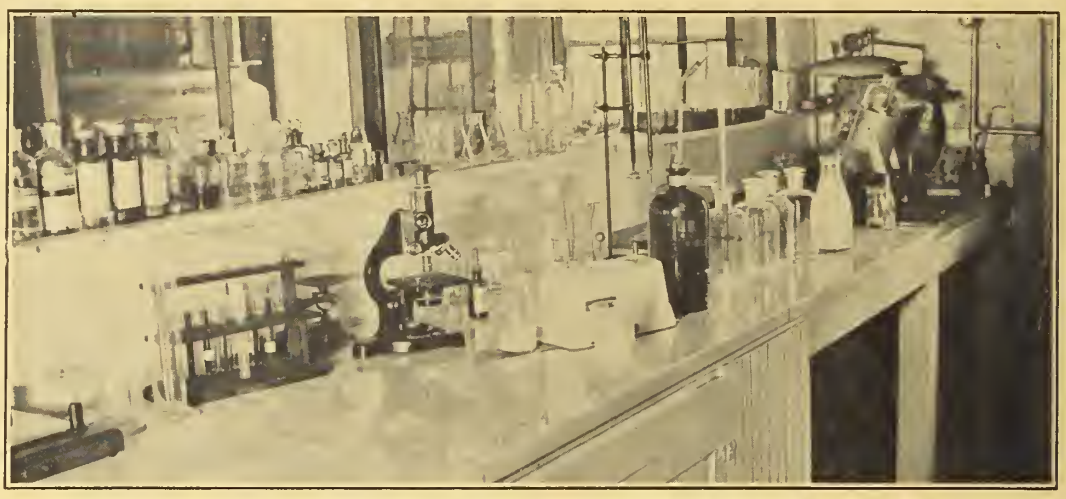
A statement of Miss Washington's endorsement together with a brief history about the bed, and its serial number, appear inscribed on a silver plate attached to the headboard. This plate is proof of the authenticity of design and, together with the limited edition. enhances their value as future heirlooms of the Bi-Centennial celebration.

Made in genuine mahogany of course and priced at $75.00.

Shown exclusively by

HOWARD LORTON INC.

724-746 SPEER BOULEVARD



A Portion of the Laboratory

The entire resources and ability of this company are dedicated to the production of pure clean milk. Modern equipment and human endeavor properly synchronized. Suggestions of the medical profession are always welcome.

1230 13th St. CARLSON-FRINK CO. MAin 0111

ToxoK

A Specific Against POISON OAK

PREPARED under government license and supervision in dilute alcoholic solution . . . non-irritating, rapidly absorbed. The antigenic strength of each lot is constant.

CUTTER STANDARD

The CUTTER *Laboratory*
Established 1897
BERKELEY, CALIFORNIA

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 6 JUNE, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

OF MEDICINE
JUN 6 1932
LIBRARY

TABLE OF CONTENTS

Editorials
- A Great Need in Medical Education....233
- A New Dress for Colorado Medicine....233
- Antivivisection Questionnaire....234
- Malign Propaganda....234
- Redistribute Blame for Cost of Sickness....235
- A Record in Health Education....235
- Colorado at the A. M. A....235

Original Articles
- Chronic Nephritis, Ralph H. Major....236
- The Outlook for Medicine, J. W. Amesse....242
- Rheumatic Fever, Lorenz W. Frank....245
- Rheumatic Heart Disease, Clough T. Burnett.248
- Surgical Forms of Non-Tuberculous Joint Diseases, Charles E. Sevier....251
- Arthritis Deformans, Charles N. Meader....253

Case Reports
- Bleding Ulcer of Meckel's Diverticulum, H. R. McKeen....258
- Sinusitis with Osteomyelitis of the Rim of the Orbit, Frank R. Spencer....259

Public Health Notes....260

Book Reviews....261

Biography as Related to Medical Terminology....262

Secretarial Notes and Comment
- Colorado at the A. M. A....263
- Meeting of the Western Branch, American Public Health Association, June 9-11, 1932, Denver. Tentative Program....264
- Medical Societies....265
- Obituary....266
- Woman's Auxiliary....266

Wyoming Section
- Editorials
  - Republican and Democratic State Conventions....267
  - The Wyoming White House Conference....267

Hospital Section
- Editorials
  - The Association's Annual Meeting Ten
  - Nurses' Unemployment....Ten
- Original Articles
  - What Place Has Research in the Hospital?, Alfred H. Washburn....Ten

Immateria Medica....40

NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

Colorado State Medical Society Library
and
Medical Society City and County of Denver Library

COMPRISE JOINTLY

Total number of volumes....25,763
Total number of portraits....418
Number of periodicals received in 1931:
American, 143 Foreign, 91 Total, 234

SERVICE TO ALL MEMBERS OF THE COLORADO STATE MEDICAL SOCIETY

1. *Loans by Title:* Upon request, any book or journal will be loaned for one week.
2. *Reference Service:*
   (a) Upon request, literature on any stated subject will be found and forwarded.
   (b) As received, current journals will be searched for articles on a stated subject and appropriate issues forwarded to those members requesting this service.
3. *Journal Service:* Two hundred and twenty-eight medical journals are received regularly. ANY MEMBER OF THE STATE MEDICAL SOCIETY may select a journal or a number of journals which he would like to receive regularly, and these journals will be loaned for one week.

BORROWERS PAY ONLY SHIPPING CHARGES.

"WHAT CAN WE DO FOR YOU?"

Present Day Credit Conditions Create Many Delinquent Accounts

Your Slow Payers Are Your Competitor's Cash Customers

BUY NOW—PAY LATER

EXCUSES

Every Dollar Added to "Unpaid Accounts" Is a Dollar Taken From "Net Profit"

Why Support The Dead Beats?

There's a Reason for Bad Debts

The Cheapest Service is Never the Best but The Best is Usually the Cheapest

Delay Kills

List Those Slow Accounts Now

The Best Collection Service Available

Exclusively Professional

The

American Medical & Dental Association

Credit Men for the Medical and Dental Profession

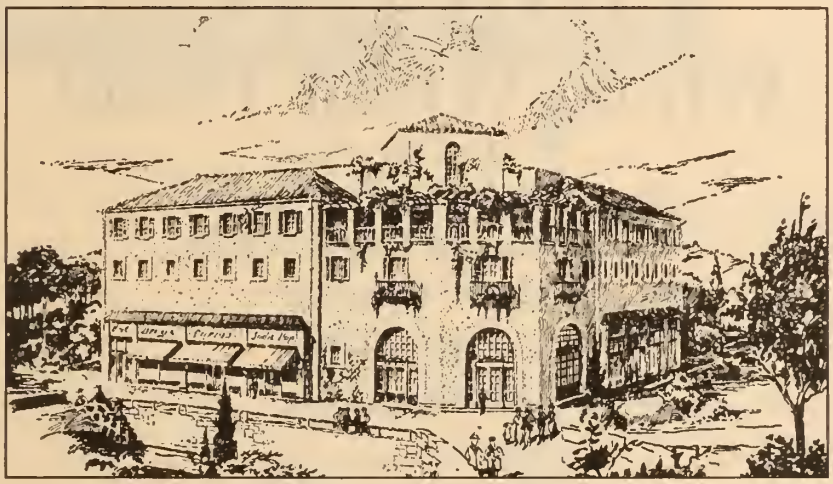
700 CENTRAL SAVINGS BANK BLDG. PHONE TAbor 2331

DENVER, COLORADO

Announcing

OPEN HOUSE WEEK

MANITOU MINERAL SPRING SANITARIUM



AT THE FOOT OF PIKE'S PEAK

HYDRO-THERAPY PHYSICAL THERAPY

Open house June 12th to 19th, inclusive. Inspection invited by visiting physicians.

PAUL M. LENNOX, M.D.
Medical Director

MANITOU,
COLORADO

THE OLD HOMESTEAD BREAD CO.

offers for your approval

The Formula of

KELPIN

Whole Wheat Bread

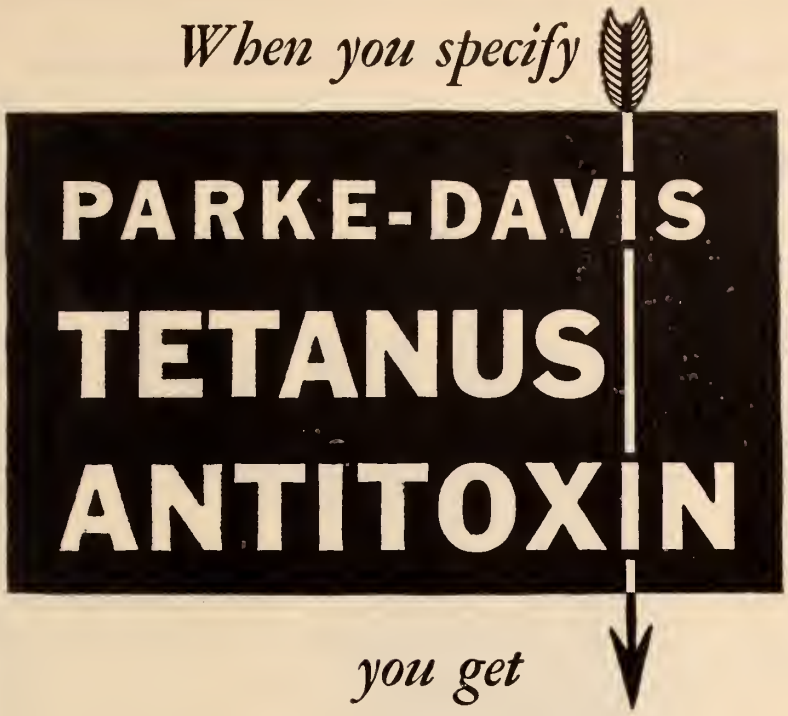
26	%	Montana W. W. Flour
26	%	Kansas Patent Flour
26	%	Water (filtered)
5	%	Powdered Milk
5	%	Cerelose
2	%	Salt
4	%	Shortening
1½	%	Diastatic Malt
½	%	Kelpin
2	%	Honey
2	%	Yeast
100	%	

It is rich in iodides

It is rich in food value

It is well baked and sold fresh

When you specify



you get

A clear, sparkling liquid standardized to contain 40% more antitoxic units than stated on the label.

You get a product of small bulk containing a minimum amount of reaction-producing proteins.

Put up in a simple, workable syringe which insures easy administration and perfect asepsis.

Bio. 141.	**1500 units in syringe.**	*(average prophylactic dose)*
Bio. 143.	**5000 units in syringe.**	
Bio. 146.	**10,000 units in syringe.**	*(average therapeutic dose)*
Bio. 149.	**20,000 units in syringe.**	

Parke-Davis biologicals represent the results of many years of painstaking research in biological manufacture.

The surest way to get Parke-Davis quality is to specify, and make sure that you get, Parke-Davis products.

PARKE, DAVIS & COMPANY

Detroit . New York . Chicago . Kansas City . St. Louis . Baltimore . New Orleans . Minneapolis
Seattle . San Francisco *In Canada:* Walkerville . Montreal . Winnipeg

The SECHRIST Pressure Cooker



The Original and Time Tested Sechrist Cooker Improved to Meet Every Possible Requirement .

Approved by efficiency experts, Division of State Relations, U. S. Department of Agriculture.

Approved by Home Canners Associations.

Used in Domestic Science Classes of 29 State Universities.

Used in Hospitals and institutions in every state of the country and in most foreign countries.

Range cookers for Gas, Coal, Gasoline, etc., in 11-14-20 and 30 quart sizes.

With few exceptions practically every owner of a Sechrist Pressure Cooker would not sell it for ten times its cost if another was not obtainable. However, the price is low—easily within your reach. Send for descriptive booklet and price list.

DENVER METALS FOUNDRY COMPANY

DENVER, COLORADO

Digitan

TRADE MARK

A digitalis preparation of dependable potency, stable, accurately assayed and physiologically standardized. Digitan is manufactured from carefully selected leaves by special processes. It retains its activity unimpaired for years; is dependable and exceedingly uniform in its action. Digitan contains the active glucosides, digitoxin and digitalin, in high concentration. It is free from digitonin and substantially free from other inert substances. Your prescription pharmacist can supply Digitan in four convenient forms permitting very accurate administration of the drug. Write for literature.



MERCK & CO. INC.

MANUFACTURING CHEMISTS

RAHWAY, N. J.

"COUNCIL ACCEPTED" AMERICAN MEDICAL ASSOCIATION ACCEPTED"

COPYRIGHT, 1931 MERCK & CO. INC.

"COUNCIL ACCEPTED"

TRADE PYRIDIUM MARK

PHENYLAZO-ALPHA-ALPHA DIAMINO PYRIDINE MONO-HYDROCHLORIDE. (MANUFACTURED BY THE PYRIDIUM CORPORATION.)



URINARY ANTISEPTIC

for PYELITIS
CYSTITIS
GONORRHEA
PROSTATITIS
VAGINITIS
CERVICITIS

Write for interesting booklet describing the clinical applications of Pyridium.

MERCK & CO. INC.

MANUFACTURING CHEMISTS

RAHWAY, N. J.



COPYRIGHT, 1931, MERCK & CO. INC

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.

When impartial and dependable advice is required in connection with any insurance policy or problem,

See

Max S. Schayer
Insurance Counselor

535 EMPIRE BLDG
TAbor 5563 KEystone 6414

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO ENGRAVERS AND MAP MAKERS
KEYSTONE 5634 -830- 10TH ST.
DENVER, COLO.

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of
ORTHOPEDIC APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.
Phone KEystone 2702
Denver, Colo.



WHEN INDICATED AND WHY

PREGNANCY— Mead's Cereal has important amounts of practically every mineral present in the human body. It contains 0.22 Gm. Ca and 0.17 Gm. P per oz., and thus aids in protecting the mother's bones and teeth.

LACTATION— Containing 15% wheat germ, Mead's Cereal is rich in vitamin B complex, likely to be deficient in breast milk.

SECONDARY ANEMIA—Higher than any other food in iron and containing generous amounts of copper needed as a catalyzer, this palatable food has been shown to increase the hemoglobin.

INFANT FEEDING—With an antiscorbutic and Mead's Newfoundland Cod Liver Oil, Mead's Cereal supplies all vitamins and minerals needed for the first solid food.

COLITIS—Though rich in vitamins and minerals, Mead's Cereal has a low residue.

CALCIUM-PHOSPHORUS DEFICIENCIES—Mead's Cereal contains more calcium and phosphorus than most common foodstuffs.

VITAMIN B DEFICIENCIES—Mead's Cereal is helpful in correcting anorexia and spasticity in infants.

NORMAL PERSONS OF ALL AGES— No other food is so rich in such variety of minerals as Mead's Cereal. It thus becomes a valuable protective food for the normal individual as well as the sick.

Mead's Cereal is a delicious food that is relished by infants, children, and adults alike.
Write for samples and recipes for your household use.



Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons

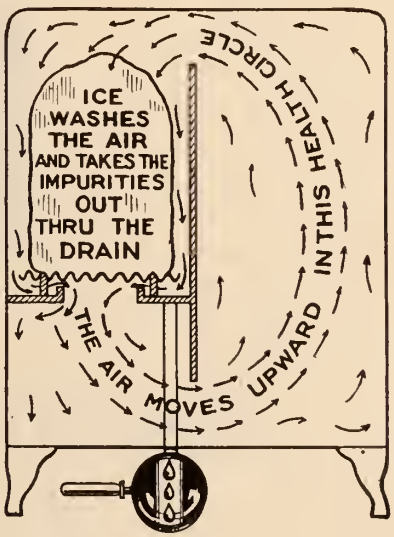
Fresh Air CIRCULATION

is found only in an

ICE Refrigerator

Foods are kept in perfect condition only when the air that comes into contact with them in a refrigerator is constantly cleansed and purified. REFRESHENED air circulation is an exclusive feature of modern ICE Refrigerators.

Regular, automatic movement of air explains why harmful odors and bacteria do not remain in a modern ICE Refrigerator. The food chamber of an ICE Refrigerator is cleansed through constant change of air. Odors and bacteria are carried down the drain. ICE Refrigeration is moist enough . . . dry enough . . . cold enough. See the many handsome new modern ICE Refrigerators in our display. Prices give you a big saving. Or telephone TAbor 1251 and ask to have our display car visit your home.



Liberal Allowance on Your Old Ice Box

Denver Ice and Cold Storage Co.

2635 BLAKE ST. PHONE TAbor 1251

"Be Sure It's the DENVER ICE TAbor 1251"

ELI LILLY AND COMPANY

FOUNDED 1876

Makers of Medicinal Products
for Use Exclusively
Under Professional Direction



Lilly
Ephedrine Preparations

There is a suitable Lilly Ephedrine Product to meet a wide range of requirements in the treatment of asthma, hay fever, and other allergic conditions.

Prompt Attention Given to Physicians' Inquiries
Address Principal Offices and Laboratories, Indianapolis

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: W. H. Crisp, M.D., *Chairman*, C. F. Kemper, M.D., C. S. Bluemel, M.D.

VOL. 29 NUMBER 6 JUNE, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

A Great Need in Medical Education

EVERY CLASS A school of medicine has frequent need of a fund for helping a few of its junior and senior students through their last terms. As a rule such students are among the most dependable and promising in their classes, having forged through a hard grind because they want to be good doctors. Sheer ambition and determination has carried them through the introduction to a career of which they are entirely worthy. To have such progress interrupted through lack of tuition or other necessary money is a circumstance which has no rightful place in an institution of our profession.

There is no better place for endowments, particularly from the estates of physicians who desire a lasting tribute toward the advancement of the profession which claimed their life's endeavors. The institutions, their Deans and faculty, cannot ask for this consideration; their humility precludes its suggestion.

At this time of year it is particularly fitting to direct our attention to the fact that many upper classmen in our own institution at this time are suffering disheartening financial embarrassment. The small amount of income available from existing funds for this purpose has long since become depleted. Among the married students, whose wives have bravely worked to replenish a scanty budget, are instances of distress from unemployment. Excuse from commencement exercises has been requested because of inability to pay the rental fee for cap and gown.

Loss of loans to students who have reached the last two years would be negligible. The honor and gratitude prevailing among men and women of this caliber practically precludes this possibility. Granting that the money would be repaid with interest, a small endowment will expand according to the compound interest scale. The good that will also accrue through the encouragement of these candidates toward the successful teaching and practice of medicine is of inestimable value to our profession.

Funds for this purpose should never have to be sought outside the institution—such as our Dean has been forced to do. Had the last generation of medical men been made mindful of this situation, surely the prevailing needs would be adequately covered.

We feel it is not out of order to make these comments editorially and to suggest that our readers give the matter thoughtful consideration. Provision may be made now for the establishment of a fund at any future date.

A New Dress for Colorado Medicine

WITH this issue, Colorado Medicine dons for the first time some of its new type. Although the change is not radical, we believe it constitutes a distinct betterment.

Recently the Western Newspaper Union, printer of Colorado Medicine, set out to modernize its fonts of "body type," the term

applied to the small type used for the main body of publication reading matter as distinguished from type used for headlines or advertisements. The printing firm kindly allowed Colorado Medicine a voice in choosing the type faces it should purchase, that used throughout the main editorial sections of the Journal this month being the final choice.

We beg the indulgence of readers for one or two issues in that a little time is needed before the complete transfer can be made. Pending the full change, a few articles and items in the advertising sections will be carried in the old type. During the change comparisons may be made, and we trust that readers will agree with us that the new type is more pleasing to the eye and is easier to read than the old "newspaperish" kind.

Antivivisection Questionnaire

MANY physicians have received and others will receive a questionnaire from the National Anti-Vivisection Society. This is one of many comparable assaults upon members of the medical profession for data which may be used to further the purpose of propagandists. Through quantity production of such psychological endeavors, sufficient data may be procured to misinterpret and distort certain facts in favor of vicious legislation.

The accompanying letter would have us believe that economic hardships, now endured by medical men, are a result of the indignation of the people toward our "cruelties" to animals—cruelties inflicted for our own amusement, curiosity, and profit.

When considering action upon this matter, our readers are urged to note carefully how any answers may be used against us, that variations in opinion could be misused to disqualify scientific procedures. Flaunting such data, together with their own misconceptions, before the public eye, the propagandists would evade the fact that through animal experimentation the world is a safer and more healthful place for man and beast.

Malign Propaganda

IN SEEKING the spectacular and in appealing to the lay avidity for gruesomeness, many writers exploit the field of medicine. This malicious practice strikes at the root of scientific health control and unjustly injures the confidence earned by the medical profession and its institutions.

A few facts and a smattering of truth must be re-touched and magnified to make a good story. The printed page still appeals to the laity as gospel truth. The majority of topics are unimportant, but they become particularly pernicious when deprecating the work of generations of medical men toward alleviation and control of disease. Undoubtedly no field of endeavor has been more maligned than that of obstetrics.

Self-styled critics insist that the medical profession is guilty of criminal negligence in the prevention, for example, of puerperal fever. No allowance is made for the fact that infection may follow the patient's own carelessness, nor that statistical computation varies broadly in different countries and in different parts of the same country. They expatiate upon the premise that mothers confined in the home are avoiding the hazards of hospitalization. Details of stricken and dying patients are not omitted. The implication that the hospital is a dangerous place will naturally instill dread in expectant and prospective mothers. It will tear down their confidence in a service for which there is no substitute.

Can we answer and correct this? Specifically, we probably can not. However, the solution to this situation lies within the scope of public health education. It is through ignorance and misinformation that the public accepts such propaganda. None other than the medical profession is qualified to instill in the public mind knowledge which will preclude the acceptance of false propaganda instead of facts. The people are curious; they desire the wherefore of what is done for them. Our profession must relinquish its reticence and establish the fundamentals of scientific health control as a part of each individual's education.

Redistribute Blame for Cost of Sickness

AMID the multitude of articles upon medical care appearing in the lay press, we occasionally find one in which the author actually admits that it is the desire of our profession to solve the question of the unequal distribution of medical services, to prevent as well as cure disease, and to have its cost fall not too heavily upon the shoulders of those unable to bear it.

An article in the North American Review has set forth the tremendous number of work and school days lost per year, the number of cases of preventable diseases still prevailing, and the tremendous costs of every variety of sickness. The unequal distribution of doctors and of hospitals and the inability of the majority of people to meet the costs of sickness is stressed.

As possibilities for the solution of the problem are named the plans of great universities to care for students on the basis of a small annual fee, and of corporations to care for their employees, and even the families, for a stipulated sum. Hopeful experiments of private group clinics to render service for flat rates, and "municipal doctor" systems are mentioned—all as representing a desire to escape from the vicious circle of doctor bills which the majority of people feel they cannot pay. The statement is made that more extensive medical care must be made available, that it "will be voluntary and cooperative in its organization or it will be bureaucratic."

Again this sounds like a letter of marque—a reprisal. It implies that our profession is to blame, that medical men must change their ways by and for themselves, or serious consequences will be thrust upon us. Mention is not made of the fact that a large proportion of this multitude of sufferers have failed to provide for the rainy day; they have failed to avail themselves of savings and insurance plans which are within their means. The $360,000,000 spent annually in the United States for "patent medicines" of secret composition, useless and even harmful, would go a long way in procuring such protection.

Let us hope that as the future finds our people more "health conscious" under the guidance of the profession's educational program, they will also see the wisdom of provision for security in case of inevitable illness, and will spare physicians at least part of the blame for its cost.

A Record in Health Education

IN LOUISIANA is a small town of 16,000 persons. It has a health unit under the direction of a physician who is also the chairman of the local follow-up committee of the White House Conference. Under the able leadership of this man, the unit in 1931 vaccinated 1,855 children against smallpox, immunized 393 children against diphtheria, gave 3,000 health examinations to children, and sponsored 2,200 dental examinations among school children. A town meeting at the Court House created interest in a "Tonsil Clinic" which resulted in 100 tonsil and adenoid operations. Colored midwives, upon whom a large proportion of that element of the populace depends, are given weekly instruction. Better nutrition is encouraged in the schools. Cows are tuberculin tested and milk production and handling improved as an important part of rural sanitation.

Cannot this example of intelligent health education be duplicated in our state and in other states? Under such active plans, whole communities are quickened to the sense of responsibility for the protection of this and the oncoming generations.

Colorado at the A. M. A.

BE SURE to read our Executive Secretary's article under this same heading in the Secretarial Notes and Comments, this issue.

It is worthy of your time. We have reason to be proud of Colorado's representation and part taken in this great Annual Session. Mr. Sethman has prepared an entertaining report for the delectation of those of us so unfortunate as to have remained at home.

CHRONIC NEPHRITIS*

RALPH H. MAJOR, M.D.
University of Kansas School of Medicine
KANSAS CITY, KANSAS

Chronic nephritis was first described by William Saliceto, professor at Bologna circa 1268, who has left us in his treatise on medicine the description of dropsy due to contracted kidneys ("durities in renibus"). These observations of Saliceto however, seemed to have passed unnoticed for more than five centuries. Then in 1811, William Charles Wells pointed out the relationship between dropsy and albuminous urine, noting also that in three cases the kidneys were hardened. We should like to claim Wells as an American, since he was born in South Carolina. His father, however, was a most devoted Loyalist or Tory, and upon the outbreak of the Revolutionary War returned with his family to England where Wells spent most of his life and carried on all of his medical and scientific work. So we have (as Americans) only a slight claim to him and must give him up to the British roll of science. A highly gifted man, Wells not only gave us an admirable account of dropsy with albuminuria but was also the first physician to point out the cardiac complications of rheumatic fever. He also made important contributions to physics, the best known of which was his classic "Essay on Dew," the first clear description of its formation.

Two years after Wells' paper on dropsy, John Blackall published in 1813 his "Observations on the Nature and Cure of Dropsies, and Particularly on the Presence of the Coagulable Part of the Blood in Dropsical Urine." Blackall reports eight cases in which the kidneys were "remarkably solid and hard, their structure somewhat confused and in some instances schirrotic." Richard Bright was, however, by general consent, the first observer to clearly connect the association between diseased kidneys, dropsy, and albumin in the urine. Bright's "Reports of Medical Cases," which appeared in 1827 describing nephritis with the important distinction between cardiac and renal dropsy, gave him a world wide reputation. Bright, it should be added, not only described the pathological lesions of nephritis with great accuracy but also showed that there was a continuous withdrawal of albumin from the blood in many cases and also that urea accumulated in the blood in excess. "Bright could not theorize," his biographer Wilks remarks, "but he could see, and we are struck with astonishment at his powers of observation, as he photographed pictures of disease for the study of posterity." Part of his skill in delineating disease was doubtless due to his skill as an artist, for we are told that he made a practice of sketching patients and pathological specimens of unusual interest.

This important synthesis of albuminuria, dropsy, and diseased kidneys led to further investigations. The microscope which was being used with increasing frequency showed the presence in the urine of these patients of those structures we call casts. These casts had first been detected in 1843 by Simon and by Nasse and were studied carefully in 1844 by Henle who was not only an artist, a poet, and an accomplished musician, but as Garrison remarks, "one of the greatest anatomists of all time." This intensive study with the microscope brought at times some rather amusing results. Osler has told one of the best of these stories in his interesting paper with the somewhat paradoxical title of "On the Advantages of a Trace of Albumin and a Few Tube-casts in the Urine of Men Over Fifty Years of Age." Osler's story is rather well known but as a classic bears repetition. It concerns a patient whom Osler saw during the early period of his practice and in whose urine he found a trace of albumin and a few casts. Because of these findings, Osler gave a gloomy prognosis, and the patient departed. Some twenty years later Osler,

*Read before the Sixty-first annual session of the Colorado State Medical Society at Colorado Springs, Sept. 1, 1931.

while visiting the cathedral at Antwerp, was startled by the appearance of the same man who came from behind one of the pillars and walked up to Osler with the smiling remark, "Not dead yet, Doctor."

Another important finding which was soon added to the syndrome was the discovery that most of these patients had an elevation in blood-pressure. The story of the development of our methods of estimating blood-pressure begins with the classic experiments of that interesting clergyman-physiologist, Stephen Hales, who first published his discovery of the blood-pressure in 1733 and ends one hundred and sixty-three years later when Scipione Riva-Rocci, in 1896, devised a practical instrument which soon appeared in every medical clinic and in every progressive physician's consultation room. We must not suppose, however, that physicians waited until the appearance of Riva-Rocci's instrument in 1906 before venturing the diagnosis of high blood-pressure. This condition had been recognized innumerable times by the physician who had no mercury manometer but only his highly trained fingers. They told him the blood-pressure was elevated even if they failed to transmit the knowledge in millimeters of mercury. Indeed one of the classic treatises in medicine which can still be read with a great deal of profit, Broadbent's "The Pulse," was published sixteen years before the invention of Riva-Rocci's instrument, and yet it has masterful chapters on "Low Arterial Tension," "High Arterial Tension," and the "Pulse in Kidney Disease." No one has described the pulse in kidney disease better than Broadbent when he wrote, "The artery is contracted and cordlike, full between the beats, and capable of being rolled under the finger and followed up the forearm, while the pulsatile movement is deliberate and inconspicuous but arrested only by great pressure."

A short time after Bright's original paper, the pathologists and physiologists began the study of this new disease. The hard pulse and thickened arteries were early noted. and in 1868 Johnson advanced his well-known theory to explain these findings. According to Johnson certain impurities which are normally excreted by the kidneys are retained in the blood, irritate the tissues, and produce constriction of the blood vessels. This constriction elevates the blood-pressure and in time leads to thickening of the arteries. About the same time Gull and Sutton advanced the theory that the arterial hypertension was due to an arterio-capillary fibrosis. These two opposing theories continue to have their champions—the theory of Johnson that the hypertension and arterial lesions are secondary to hypophetical toxin, and the view of Gull and Sutton that the pathological lesions are primary and the rise in blood-pressure secondary.

The pathologists have also been quite industrious at classifications since the time of Bright—indeed, there is no group of lesions which have caused them greater trouble than those of the kidney. Attempts to classify these various kidney lesions have often brought confusion rather than clarity. Many of these classifications with their attempted explanations, to quote Broadbent, "Survive only in virtue of the great and merited reputation of its authors, and of the euphonious terms which they introduced." Paul of Aegina, in the seventh century, described sixty-two different kinds of pulses. The different kinds of kidney lesions which we find mentioned in the literature do not quite reach this number, but the array of terms and classifications employed is sufficiently bewildering. Classifications have been proposed based upon pathological, clinical, symptomatic, and chemical considerations. An etiological classification is obviously desirable, but in the face of our present limited knowledge of the etiological factors in chronic nephritis, is obviously impossible. The best approach we have at present to a classification is through a careful study of the outstanding clinical findings, attempting to correlate them with the anatomical lesions.

The outstanding urinary findings in chronic nephritis are the presence of albumin and casts. We have long been inclined to regard the presence of albumin and casts in the urine as a distinctly pathological

finding, yet more recent studies have shown that both are normally present in the urine. To demonstrate the presence of albumin in normal urine requires the use of very sensitive reagents and the presence of albumin demonstrated with the acetic acid and heat test denotes an abnormality. The normal individual, as Addis has shown, excretes approximately 1,000 casts in twelve hours, while in chronic nephritis the number exceeds 5,000 and may indeed be several hundred thousand or even millions. When less than 5,000 casts are excreted in twelve hours, they are rarely seen in a microscopic specimen so that the presence of several casts in a microscopic field indicates an abnormal condition. However, chance may show us a cast when examining a normal urine, and we must not fall in the error of diagnosing a chronic nephritis because the patient's urine shows a single cast. A single tubercle bacillus in a sputum specimen may be sufficient for the diagnosis of pulmonary tuberculosis, but it takes more than a single urinary cast to label a patient a nephritic.

The simpler methods of examining the urine for casts and albumin have yielded valuable information for years, but of late they have been somewhat overshadowed by the more spectacular procedures of functional kidney tests. These tests have been of great value unquestionably, but there has been a tendency, I think, to exaggerate their importance and especially to over-define them. The most widely employed test is the phenolsulphonephthalein test of Rowntree and Geraghty, a very splendid test in many ways if we do not ask too much of it. I occasionally see physicians trying to estimate the functional capacity of the kidneys in terms of phenolsulphonephthalein excretion—80 per cent kidneys, 60 per cent kidneys, or 30 per cent kidneys. This is of course misleading. Several years ago, in studying a group of medical students, we found that the same individual on one day might excrete only 20 per cent of 'pthalein and the following day have an excretion of 80 per cent. These findings lead us to further studies which showed that the dye is destroyed by the liver. When phenolsulphonephthalein is injected directly into the liver or into the portal vein, no dye at all or only a faint trace is excreted in the urine. This finding suggests strongly that the low excretion seen not infrequently in individuals with no evidence of renal disease may be due to the fact that the dye, after being taken up by the blood, is so distributed that an unusually large portion passes through the liver and is destroyed.

Just as we see the normal individuals who have low 'phthalein excretion, so we also see patients with bad kidneys who have a normal excretion of phenolsulphonephthalein. Not long ago I saw a patient with a 'phthalein excretion of 55 per cent, a blood N. P. N. of 20, and creatinine of 1.5, which might lead one to give a good prognosis. Eight weeks later his blood N. P. N. was 211, creatinine 13, and an autopsy two days later showed an advanced chronic nephritis

Functional tests at best are only rough indicators of the anatomic state of the kidneys. The reason for this is clear when we study the physiology of the kidneys. Richards has shown that all the glomeruli of the kidneys do not work constantly at their task of secreting urine but work in shifts. We may visualize this progress somewhat as follows: In the perfectly normal kidney, four glomeruli in the period of an hour, each works fifteen minutes with forty-five minutes rest. If one glomerulus is destroyed, the three glomeruli then take over the extra work, each working twenty minutes with forty minutes rest. If two glomeruli are destroyed then the remaining two work thirty minutes and rest thirty minutes. Up to this time the glomerulus has had a period of rest, but if three of the original glomeruli are destroyed, then the fourth works the whole hour with no rest, and signs of renal insufficiency appear. This explains why signs of renal failure do not appear as a rule until three-fourths of the glomeruli are destroyed. Then we find accumulation of the so-called waste products in the blood and the increase in blood non-protein nitrogen, urea, and creatinine which are such

striking findings in many cases of chronic nephritis.

These remarks do not imply a general denunciation of the renal functional tests. Such tests are of great value as we all know —and no one better than the genito-urinary surgeon. A kidney which is not anatomically badly diseased, may have its function badly impaired because of bad treatment or of neglect, just as a mild diabetic may go into coma because of long continued dietetic excesses. But the point must be stressed that kidney functional tests must be considered in relation to other findings. Any test of renal function suggesting severe kidney lesions should not cause us too much alarm when other signs are lacking, and conversely, a patient with a good excretion of phenolsulphonephthalein but with a high blood-pressure, showers of casts in the urine, and a very heavy albuminuria, usually has a severe kidney lesion.

Another outstanding clinical feature of chronic nephritis is the presence of an elevation in blood-pressure. All cases of chronic nephritis do not, it is true, show this elevation, but its great frequency in this disease and its importance justify a brief consideration of the mechanism by which this elevation is produced.

Since the normal blood-pressure is maintained by three factors, the force of the heart beat, the quantity and quality of the blood, and the peripheral resistance, it is obvious that an increase in any one of these three factors may increase the blood-pressure. Clinically, we know that it is the third factor, the increase in peripheral resistance, which produces in most instances the elevation in blood-pressure.

It is a matter of some interest that Stephen Hales, who discovered the blood-pressure, carried out some experiments upon this problem. He noted that cold water, brandy, decoctions of Peruvian bark and "such things as constringe the vessels increase the force of the arterial blood," while warm water had the opposite effect. Hales also noted that brandy first constricted and later dilated the vessels, and from this experiment he theorizes in some detail upon the unpleasant physiological changes which take place in these "unhappy habitual drinkers of brandy," who become victims of the most epidemical and destructive plague that ever befell mankind."

Coming down to more recent times, we find the work of Traube who attempted to prove in 1858 that the elevation in blood-pressure was due to the inability of the heart to force blood through the constricted and sclerotic blood vessels of the kidneys. This theory in turn was demolished by Senator and Katzenstein who showed that experimental occlusion of the small renal vessels had no effect upon the blood-pressure. It may be remarked that this mechanical theory shattered more than seventy years ago is still invoked by some to explain elevations in blood-pressure.

For the past fifty years investigators have wrestled with the problem, and it would take hours to summarize the vast literature upon this subject. More recently a new light has been shed upon this subject by studies of the capillaries and arterioles during life. Otfried Müller of Tübingen has been particularly active in this field and his monumental atlas "Die Capillären der menschlichen Körperoberfläche in gesunden und kranken Tagen," has given us a beautiful series of illustrations of the capillary bed in health and in many diseases. He has shown that in chronic nephritis with hypertension the arteriolar end of the capillary loops are markedly constricted, the blood flow is rapid, and in time the loops are destroyed. His work has found gradual acceptance although it may be incorrect in some details.

The acute rise in blood-pressure often seen in acute nephritis gives a very beautiful demonstration of the correctness of the theory that an elevation of blood-pressure is due to a generalized constriction of capillaries and arterioles throughout the body. Kylin, who has studied this phase of the disease particularly, points out that the lesions in the kidney vessels, that is the vessels of the glomeruli, are only a part of the picture. Constriction of the blood vessels in the skin produce no marked symptoms while similar changes in the

glomerular vessels lead to marked disturbances in urinary secretion and a partial occlusion of the retinal vessels produces distressing ocular symptoms. Indeed, Kylin has gone so far as to suggest that the term "acute glomerular nephritis" be abandoned in favor of "capillaropathia universalis acuta."

While the course of events, particularly the events preceding its appearance, are by no means so clear in chronic nephritis as in acute nephritis, the evidence leads us to believe that the same mechanism is at work in both conditions to produce the elevation in blood-pressure. Pathological studies reveal a widespread vascular disease in other organs as well as in the kidneys. Clinically we see evidence of this fact when we examine the eye-grounds and study the tortuous, constricted, and often obliterated retinal vessels.

These observations on the mechanism of the production of arterial hypertension are of especial value when we attempt a classification of chronic nephritis.

Many attempts have been made, as has been mentioned, to classify chronic nephritis. Some are too complicated, some are too simple. The classification I wish to present does not cover every unusual type one encounters, but it is a simple workable classification and as a colleague once remarked, it accounts for 90 per cent of the cases we meet, and for the remaining 10 per cent ninety different classifications have been proposed.

First we have chronic glomerular nephritis. This type is due primarily to a vascular lesion. We have a widespread vascular disease, and as a result we have an elevation in blood-pressure. The changes in the glomerular vessels produces albuminuria and a slight but definite hematuria. Red blood cells are invariably present in the urine and casts are abundant. Interference with excretion leads to a retention of nonprotein nitrogen, urea, and creatinine. Anuria with uremia often results. Involvement of the retinal vessels leads to what is commonly called albuminuric retinitis.

The cause of this type of nephritis is not as clear as some would have us believe. Acute glomerular nephritis is usually the result of an acute infection with a streptococcus. Chronic glomerular nephritis, according to most authorities, is the result of repeated streptococcic insults. Often we have such a history, just as often we are forced to assume that the patient has had such a continued series of insults which neither patient nor physician had detected. Certainly the observation that patients with chronic glomerular nephritis have an irregular fever, that they have acute exacerbations, and that their kidneys, when studied with careful staining methods, show streptococci, all speak for the infectious theory. However, there may be an added factor that predisposes or protects the patient from such a localization of infection, possibly some profound metabolic factor or even some type of avitaminosis as yet undiscovered.

The second type of chronic nephritis, to employ an anatomical term, is tubular nephritis. Here we are dealing not with vascular involvement but with a parenchymatous involvement. As a result there is no change in the blood-pressure, and the heart is not enlarged. The parenchymatous involvement also is not limited to the kidneys. This type of nephritis is characterized by marked edema and a most intense albuminuria. The urine shows a few hyaline, waxy, and fatty casts but very rarely red blood cells.

This type of lesion as you know was called "nephrosis" by Friedrich Müller who wished to emphasize the difference between a degenerative lesion or nephrosis and an inflammatory lesion or nephritis. This distinction has been approved by some pathologists and criticized by others, but there is something fascinating about the term and it has received general acceptance.

It should be emphasized, however, that although the term nephrosis is new, the condition itself has long been recognized. Osler, in the first edition of his Practice of Medicine published in 1893, describes this condition as chronic "parenchymatous nephritis" and notes the marked anasarca and

the heavy albuminuria, and adds that "occasionally in children, even where the disease has persisted for two years, the symptoms disappear and recovery takes place."

One type of chronic nephrosis which has attracted much attention is the variety described by Munk as "lipoid nephrosis" and in this country by Epstein as chronic nephrosis. These observers have insisted that this is a definite clinical entity, and Epstein has stated that the characteristic findings in the laboratory are an increase in the blood cholesterol, a lowered metabolic rate, and an inversion of the serum albumin-globulin ratio. Such cases are not as rare as once thought. I have studied ten typical examples. It should be pointed out that a high blood cholesterol occurs frequently in chronic glomerular nephritis, and also that while there is an association between hypercholesterinemia and edema, we often see intense edema with a normal blood cholesteral.

The decreased metabolic rate which these patients show has led Epstein to the view that this type of nephrosis is due to a thyroid deficiency. Here again there are grave objections to such a conclusion. The waterlogged patient does not radiate heat very well, and his body configuration does not correspond to the standards used in calculating the metabolic rate—so this low rate may be more apparent than real. Also if this is a thyroid deficiency, thyroid extract should clear this nephrosis up promptly—which, in my experience, it does not do. The most conservative viewpoint would seem to be that this type of nephrosis is a variety of tubular nephritis in which fatty degeneration is particularly marked.

Apparently many different agents may produce tubular nephritis: Mercury, chromium, and uranium may produce this lesion, although we rarely see patients poisoned with these substances. Syphilis at times produces it. This type also occurs as a complication of pregnancy, and in diphtheria, cholera, yellow fever, and typhus. Some of the most striking cases are seen as a complication of sinusitis, pneumococcic peritonitis, apical infections, and tonsillitis.

The third type of nephritis that seems a distinct entity is described as arteriosclerotic Bright's Disease. A better term would be arteriolosclerotic nephritis since the lesions are mainly in the arterioles and not in the arteries. This is the kidney we find in arterial hypertension of long duration. It has many affinities with chronic glomerular nephritis, but the tempo is slower. The patient shows a marked elevation in blood-pressure, the heart is enlarged, the urine copious, and there is slight albuminuria and few casts. Most of these patients, as you know, die not from their kidney complication, but from cardiac failure or a cerebral hemorrhage. Yet we must not forget that one-fourth of these patients do actually die of renal insufficiency.

Keith has described a type of hypertension running a rapid course which he terms "malignant hypertension." It forms an intermediate type between chronic glomerular nephritis and arteriolosclerotic nephritis. The more one studies these types the more one wonders whether they are not all the same thing—the same picture but flashed on the screen, as it were, at a different rate.

Therapeutics

Every physician is primarily interested in a disease from the standpoint of treatment. Chronic nephritis is one of the most interesting of diseases to the pathologist and physiologist. Its diagnostic side is unfortunately more highly developed than its therapeutic side.

Chronic glomerular nephritis, as we all know, is an incurable disease. Some sceptics even question whether any therapeutic measures add a single day to the patient's life. I believe, however, that we may, by proper measures, postpone a little the inevitable end. The patient, when he shows any signs of an acute exacerbation or any fever, should be kept in bed. An alkaline diet of the type suggested by Volhard is advisable. The diet at all times should be one low in protein. Meat need not be entirely prohibited since the body must have some protein, and there is no evidence that the protein from meat is more harmful than protein from other sources. If meat is permitted, it should be in only very small amounts. For cardiac symp-

toms, digitalis is advisable; for the anemia, iron.

Chronic tubular nephritis by contrast offers a much better prognosis, and its treatment is radically different from that of chronic glomerular nephritis. In chronic glomerular nephritis we see the result of a process which has led to an almost complete destruction of the glomerular apparatus which forms urine. In chronic tubular nephritis this delicate apparatus is not destroyed, although it may be somewhat damaged.

Our first problem in the treatment of tubular nephritis is to look for some source of infection, and if found, to remove it. In many cases, particularly in children, this procedure clears up the nephritis. The other problems are to replace the albumin lost through the urine, to combat the anemia, and to get rid of the edema. These patients should be placed on a high protein diet, and nothing is better for the anemia than iron or iron with liver. The edema is commonly a most troublesome enemy. In my experience some measures effective with one patient are quite ineffectual with another, while a remedy which seems at one time quite satisfactory on another occasion may be quite futile even with the same patient. I have employed large doses of diuretin, 80 to 100 grains per day, novasurol, intravenous glucose solutions, thyroid extract, and parathyroid extract. Some patients seem to respond well to non-specific protein therapy, such as intravenous typhoid vaccine in doses large enough to cause fever or even chills.

Chronic arteriolorsclerotic nephritis requires no treatment aside from treatment of the underlying condition.

This discussion of chronic nephritis, particularly of glomerular nephritis, like most discussions, has its unsatisfactory side. We have discovered a disease, we know a great deal about its pathology, much about its physiology, but we know neither its cause nor its cure. Chronic nephritis is still full of problems calling for solution. Let us freely admit it and have that same impartial attitude towards these problems that one of our masters, Sir William Gull, had for the whole domain of medicine when he said, "We have no system to satisfy, no dogmatic opinions to enforce. We have no ignorance to cloak, for we confess it."

THE OUTLOOK FOR MEDICINE*

J. W. AMESSE, M.D.
DENVER

It has become a tradition in this Society, as fixed as it is desirable, for the retiring president to offer a brief contribution on some aspect of medicine which he feels may be of special interest and importance to our membership. Some of my distinguished predecessors have elected to present philosophical reflections on the prevailing trends of our art, others have contributed valuable bits of research, and a few have contented themselves with a sympathetic review of the year's proceedings. With only modest achievements to look back upon, with no flair whatever for original work, and with particular interest centered in a specialty that does not usually engender extensive enthusiasm, I have resolved to have you reflect with me for a brief period on a subject singularly free from a voluminous literature and to speak on "The Outlook for Medicine." Not being prophets or the sons of prophets, we may not see what the veil of the future so stubbornly obscures, but it scarcely requires a soothsayer to interpret the signs of our changing social, cultural, and material well-being; no orthopedic surgeon need be drafted to demonstrate that "the times are out of joint." Regardless of how one interprets the genesis of the economic holocaust now threatening the ramparts of civilization itself, history still points clearly to the astonishing upheaval and to the readjustments in every sphere of human activity that have

*President's address read before the Denver County Medical Society, January 5, 1932.

followed in the wake of similar catastrophies in the past.

To what distant shores this flood of adversity will carry the good ship Medicine remains unanswered, but that important changes in our environment, our privileges, our responsibilities are imminent few will deny. Somewhere between the lugubrious forecasting of the irreconcilable pessimist and the smug contentment of those priding themselves on the immunity of our profession from attack without or revolution within, there is a middle ground upon which we can all gather for counsel and encouragement. Now, what are some of the bogeys that beset us in our contemplation of the future? Some of these are ancient evils in new dress; others are products of the times; all of them must be interpreted as sinister forces, inimical to the progress of medicine. There has never been a period in our history with a cloudless sky; in the minutes of the first meeting of the American Medical Association, convened more than seventy years ago, there appears the discussion of the same unsound and pernicious doctrines that we are fighting in our House of Delegates today.

As Dr. Sinai observes, "Apparently it is the inexorable law of progress that human movements shall expand until the very expansion itself results in a haziness of objective. This haziness produces, both within and without the movement, a dissatisfaction, and from this an effort at concentration with an attempt to clarify objectives. The great movement in medical care has now reached the stage of dissatisfaction, from the evidences seen on every hand. The physician is dissatisfied with his income which, considering the capital invested in training and the effort expended in practice, should average much more than the $3,000 now estimated as the net annual return in the United States. He is dissatisfied with what he terms the encroachments by public and private agencies upon the field of medicine. But the public is also discontented and is expressing itself through various laws intended to hamper and restrict the advance of medical science." The major threat of course, among the ever recurring attacks on the organized profession, is State Medicine. With elements of paternalism and socialism curiously intermingled, this form of regulated medical service had its origin in a decree of Bismarck in 1883. From Germany it has spread in various forms, such as compulsory health insurance and workmen's compensation acts, until in this year of grace we find that forty-two countries have adopted, in whole or in part, the plan of socialized medical service. It has crossed the sea, to be accepted in certain parts of South America and is under serious consideration at the moment in several of the provinces of Canada. "In 1927, the International Labor Congress of the League of Nations passed, without a dissenting vote, a resolution calling for the early enactment of compulsory insurance regulations by all the membership nations."

As Charles B. Reed has recently declared, State Medicine means regementation and nullity because with regulation comes authority and the power to command; a noble profession whose traditions are all individualistic comes under the thumb of politicians! In the countries referred to it has been possible to place such laws on the statute books, in spite of the outraged pride of the profession and the violation of every principle of medical ethics because of defective organization. The cry went up, especially in England, "Why were we not prepared?" The Illinois Medical Journal is well within bounds when it asserts that "state medicine has ruined medical practice in Germany and given that country the worst medical service ever administered in any civilized country of the world."

Now, while we agree that such an institution, inviting as it does the dead level of mediocrity among medical practitioners, is wholly unsuited to the genius of the American people, any student of affairs will find abundant evidence to indicate that a powerful propaganda is already established to effect just such a consummation. Governmental agencies have already taken over education, highways, health, and certain public utilities. "Where," says J. W. Sim-

mons, "will end the thousands of attempts of various State Legislatures, as well as of the Federal Government, to alter, abridge, amend, or abolish the responsibilities, rights, and privileges of the practitioner of medicine?" The astonishing policy of the Federal Government in rendering medical and hospital benefits to all veterans of the World War for disabilities not connected with their military service is an entering wedge of stupendous possibilities because if pushed to its logical conclusion it will involve the care of the veteran's families and the establishment of government hospitals everywhere, in unjust competition with civil institutions and the medical profession of the United States. A step further will supply such care to civilian employees and their families.

As Dr. Dameshek, of Tufts Medical College, argues "to single out one profession and socialize it, while all the other professions in the country remain individualistic—to make a single profession work at cost, while all the others may accumulate wealth—is manifestly unfair and illogical." Among the medical bills now before Congress is one, introduced by Senator Hatfield of West Virginia, which proposes "that the Federal Government shall cooperate with the several states in the care, treatment, education, vocational guidance and placement, and the physical rehabilitation of persons under the age of 21 years who have some physical defect that may be corrected or improved by surgical and medical care."

About 2,500 bills, introduced in forty-three states last winter, directly affected the practice of medicine and surgery. To show how far the legislative ass may run amuck, may I quote a few of the titles? Bills in Oklahoma and South Dakota sought to regulate the physician's fees; in Connecticut a measure proposed a penalty of $100 for any physician who should demand or receive excessive fees for his services; an act in California proposed to amend the definition of the practice of dentistry so as to prohibit licensed physicians from practicing oral surgery; another in Arizona and Oregon to prohibit licensed physicians from dispensing drugs, except in emergency; in Georgia an act to limit the physicians fee in uncomplicated labor cases to $15—refusal when called to be punished by fine or imprisonment or both. Arkansas opened its hospitals to osteopaths, and six other states discussed such a proposal. Many states are considering the advisability of recognizing all the cults in workmen's compensation acts—and so on.

With our priceless heritage of professional freedom to protect, with our young confreres joining the ranks to the number of four or five thousand a year and who must be guaranteed the same freedom, is it not incumbent upon us to devise ways and means, honorable and ethical, to circumvent this movement? "Fidelity to the present and its problems is the best safeguard of tomorrow," but we may well augment such security through militant organizations which will resist revolutionary changes in an ancient art.

Effect of Vitamins A and D

On the basis of the clinical observations, Flamini holds that the fat-soluble vitamins A and D administered in large doses exert a frankly beneficial effect on the course of infectious diseases in nursing children and in children recently weaned. The effect is in direct relation to the improvement in the local manifestations provoked by vitamin A, by its action on the inflamed mucosas (tonsils, bronchi, bladder), thereby stimulating the functional activity and the defense forces. The rapid drop and final disappearance of the fever may be due to the local curative action. It cannot be shown as yet whether vitamin A brings about the improvement in the general symptoms of the infection through an anti-infectious action or by an action stimulating the general defense forces of the organism. The improvement in the blood pressure and pulse action may be due to vitamin D (administered in large doses) through the effect on the central nervous system and particularly the sympathetic system.

Take this journal home to your wife.

RHEUMATIC FEVER*

LORENZ W. FRANK, M.D.
DENVER

There has been and still is much confusion about the meaning of the word rheumatism. Until recent years it was used to designate all kinds and types of joint and muscle pain. Lately the pendulum has swung in the opposite direction and it is maintained by some that the heart is involved in all cases of rheumatic fever, and furthermore, if it is not, that we are dealing with some other condition not true rheumatic fever.

Some evidence has accumulated which suggests that rheumatic fever and rheumatoid arthritis may be different manifestations of the same fundamental disease process. This evidence is added to by Dawson and Boots[1], who report that there is a striking histologic resemblance between the subcutaneous nodules occurring in rheumatic fever and those observed in rheumatoid arthritis (atrophic arthritis). In this paper, rheumatic fever will be treated as an entity and an attempt be made to correlate the symptomatology with some of the newer bacteriologic and pathologic findings.

The typical symptom complex is characterized by chills, fever, drenching sweats, leucocytosis, and the successive inflammation without suppuration of most of the joints of the body. The fever ranges between 100 to 104 degrees Fahrenheit for about ten days and then gradually subsides so that convalescence is established in about three weeks. This is the so-called monocyclic type; it may be markedly modified by the administration of salicylates even to the point of mistaking it for some other disease. There is a marked tendency to relapse, and the above described course of events may recur several times. When this is the case, the disease is spoken of as polycyclic in type. With these recurrences the heart is involved sooner or later. In place of acute relapses, the disease may settle down to a subacute or chronic course with low grade fever and mild stiffness and soreness of the joints, which in the absence of cardiac involvement is extremely difficult to differentiate from atrophic arthritis.

The specific cause of rheumatic fever is unknown, but evidence is accumulating which points toward a bacterial cause, particularly during the acute stages. Clarke[2] points out that the geographic distribution of Ceratophyllus faciatus, the common rat flea of northern temperate climates, and rheumatic fever are so similar as to make it seem possible that the insect is in some way connected with the etiology of the disease. Bacteria have been isolated from the blood stream many times; usually these have been some form of streptococci. Cecil, Nichols and Stainsby[3] present the most impressive results. In the spring of 1928 they found streptococci in nine patients, or 31 per cent of the cases studied. In the spring of 1929 they found streptococci in twenty-six, or 84 per cent of the cases studied. They noted that all except two of the strains were of the viridans group, and that the strains "show a tendency to fall into specific biologic groups." Clawson isolated streptococcus viridans in a "relatively high percentage" of cases, but these strains failed to show any specific biologic grouping. Small isolated a gamma or anhemolytic streptococcus (streptococcus cardio-arthritidis) from the blood stream two times. Birkhaug twice isolated a similar organism from the blood stream and streptococcus viridans twice. Nye and Seegal, using mediums and methods modeled after Clawson, reported entirely negative results in twenty-five cases.

This discrepancy in the results of the findings of the different workers leads to a consideration of the hypothesis that there is a similarity between some of the manifestations of rheumatic fever and those of syphilis and tuberculosis. The anatomic features of these last two diseases have been thoroughly established as allergic in their pathogenesis. If, therefore, one had a conception

*Read at the meeting of the Colorado State Medical Society at Colorado Springs, Sept. 16, 1931. First paper of "Symposium on the Arthritides."

of rheumatic fever as an analogous disease, it seems only logical to determine whether the micro-organisms suspected of playing an etiologic role could be brought into relationship with any allergic state. In this connection Swift, Derick, and Hitchcock[4] have been able to show that by suitable inoculation with non-hemolytic streptococci it is possible to induce in rabbits a hyperergic condition comparable to that obtained in animals inoculated with tubercle bacilli. They have also determined that the hyperergic state in rabbits is induced most readily by the production of focal lesions, and is maintained for months by making an agar focus infected with the allergizing streptococci. Intravenous inoculation, on the other hand, fails to induce this hyperergic state.

This conception of the focus of infection assigns to it a new role aside from its importance as a nidus from which infection is disseminated to other parts of the body, and in which the specificity of the streptococci recovered may play a relatively unimportant role.

Small[5] would have the cardiac lesions produced by a different mechanism than the one by which the joint lesions are produced. He says, the "destructive" and "proliferative" lesions of rheumatic fever (blood vessel and cardiac lesions) are produced by a different mechanism from that causing the exudative lesions (acute arthritis). The former types of lesions are produced by the action of a specific toxic product (endotoxin) derived from a particular specific streptococcus. The latter type of lesion arises because of the establishment in the patient of a condition of hypersensitiveness to a protein fraction contained in streptococci and is a manifestation of the Arthus phenomenon. This protein fraction is a highly specialized protein common to quite diverse immunological strains of streptococci. It acts as a "specific allergen" because of its chemical structure and regardless of its biologic origin.

The relation of the tonsils to rheumatic fever has certainly not been settled, but the concept of the part that allergy plays in rheumatic fever may be of some help in understanding the apparent clinical relationship. Kaiser[6] reports a large series of high school children, 4400 in number, 1000 of these had been tonsillectomized ten years previously, and 1000 had not had tonsillectomy, but were also examined ten years later. A similar survey was made on 2400 children three years after removal of the tonsils. Considering these data from a ten-year follow-up study of tonsillectomized children, he concludes, that first attacks of rheumatic manifestations occur from 30 to 50 per cent less often in tonsillectomized children. The greatest reduction occurs in children tonsillectomized early. Recurrent attacks are not benefited at all.

Tonsillar infection cannot always be directly connected with attacks of rheumatic fever and there are many cases in whom the manifestations of the disease seem to be directly associated with other infections. I was able to observe a case in a little girl for seven years. The rheumatic fever began immediately after an attack of scarlet fever. She had typical involvement, there were many exacerbations with valvular endocarditis, subcutaneous nodules, and finally glomerulo-nephritis. The tonsils were removed immediately after the scarlet fever without any effect whatever upon the course of the rheumatic fever. In this case it is conceivable that we are dealing with both a specific streptococcus and with another invader or several streptococci not of specific biologic origin. The cardio-vascular-renal lesions might be explained on the basis of the newer pathology described by Von Glahn and Pappenheimer[7]. They report on specific lesions found in patients with rheumatic cardiac disease aside from the Aschoff nodule. These lesions occur in the wall of the heart, the auricular appendages, the aorta, the large and small blood vessels of the systemic and pulmonary circulations, and even in the smallest peripheral arterioles and capillaries. They are characterized by the exudation of fibrin into and about the vessel wall, by a distinctive cellular reaction in the adjacent tissue, and by the absence of thrombosis. These acute

lesions are followed by organization with or without formation of new collateral channels, within the thickened intima and occasionally within the muscular layer.

The effect of local measures such as massage, exercises, applications of heat, etc., that have been stressed by Pemberton and others, take on more than imperic interest if the lesions called rheumatic arteritis are kept in mind. The clinical symptoms produced by these vascular lesions can be developed to a great degree, and it is possible that one might go too far. However, if the symptoms of rheumatic fever patients are carefully analyzed, many new and interesting possibilities are uncovered. Loeb[8] reports numerous cases to illustrate the clinical manifestations of rheumatic arteritis (anginal in nature), rheumatic glomerulo-nephritis, and rheumatic pneumonia.

It is not always easy to decide whether or not one is dealing with rheumatic fever, especially if there is no demonstrable cardiac involvement. Thus I recently had a patient, a man of thirty-two years of age, who had had repeated attacks of joint involvement, but at no time was there any evidence that the heart had been implicated. An abscessed tooth was extracted during an acute attack; thereupon the joint symptoms subsided in a few days and have not returned in fifteen months' time. In another case of post-pneumonic empyema, practically all the joints of the body were inflamed, but subsided in a week following the drainage of the empyema. A young lady eighteen years of age had an acute pharyngitis on July 2, 1931. (Her tonsils had been removed when she was six years of age.) On July 9, 1931, she had a chill which was followed by pain and swelling in all her joints. She had an irregular fever, averaging about 100 degrees Fahrenheit daily but reaching 104 degrees Fahrenheit several times after a chill. All the joint involvement gradually subsided except in the right ankle, this continued to be swollen and very painful. On August 7, 1931, superficial suppuration appeared on the dorsum of the right foot and this had to be incised several times. There was no cardiac involvement that could be demonstrated by physical methods. An indifferent streptococcus was recovered from the blood, and the same type of organism was grown from the suppurating foot. A vaccine made from the blood culture is being administered. There has been no fever for two weeks, but there is still some tenderness about the right foot. In the beginning this case appeared to be one of rheumatic fever, but in the light of subsequent events and with the criteria given, such a diagnosis might be questioned. The removal of a focus of infection in the presence of acute symptoms requires careful consideration because it may be the means of mobilizing another micro-organism and adding it to the original infection as a secondary invader. Gerstley[9] reports the case of a boy, thirteen years of age, who showed a subacute bacterial endocarditis developing upon a chronic one probably of rheumatic origin. The extraction of one badly diseased tooth was followed by no serious consequence. The extraction of a second was followed by an embolism which terminated the patient's life. Cultures of the root of this diseased tooth revealed a streptococcus, but it was not an organism identical to the one found in the blood and on the heart valves.

The removal of a focus may on the other hand be the means of turning the tide in favor of the patient. In 1924 two patients had typical rheumatic fever; both had received large doses of salicylates without much improvement. Tonsillectomy was done and gradual improvement with recovery followed. To the present time, there has been no evidence of renewed activity in either, both from the standpoint of the joints and the heart.

Treatment

Progress is being made in the specific treatment of rheumatic fever. Small[5] says that the problem in therapy of acute rheumatic fever appears to be that of complete neutralization of the toxic factor by a specific antiserum without passively transferring to the patient hypersensitization to the protein antigen common to different streptococci.

Clawson[10] states that streptococcus rheu-

matoid lesions in animals made hypersensitive to streptococci can be prevented by intravenous vaccination. He suggests that this method of vaccination may be indicated in patients with acute rheumatic fever, since such patients are hypersensitive to streptococci.

Swift et al.[11] suggests that this method of treatment is applicable to two classes of patients: (1) those with a continuing low grade infection; (2) those temporarily free from symptoms, but in whom relapses may be reasonably expected. They urge continuation and elaboration of the method.

The salicylates remain the sheet-anchor in treatment, especially for the control of acute symptoms. Long periods of bed rest such as are at present used in the treatment of tuberculosis should be insisted upon in order to prevent relapses and to avoid more serious cardiac damage.

REFERENCES

[1]Dawson, M. H., and Boots, R. H.: Subcutanecus Nodules in Rheumatoid (Chronic Infections) Arthritis. J. A. M. A. Vol. 95, p. 1894, Dec. 20, 1930.

[2]Clarke, J. T.: Rheumatic Fever and Tonsillitis. British Journal of Children's Diseases. Vol. 26. p. 99, (April-June), 1929.

[3]Editorial, J. A. M. A., Vol. 95, p. 417, August, 1930.

[4]Swift, Homer F., Derick, C. L., and Hitchcock, C. H.: Bacterial Allergy (Hyperergy) to Nonhemolytic Streptococci. J. A. M. A., Vol. 90, p. 906, March, 1928.

[5]Small, James Craig: Streptococci in Relation to Rheumatic Disease. Medical Clinic of North America, Vol. 13, p. 857, January, 1930.

[6]Kaiser, Albert D.: Results of Tonsillectomy. J. A. M. A., Vol. 95, p. 837, September, 1930.

[7]Von Glahn, W. C., and Pappenheimer, A. M.: Specific Lesions of Peripheral Blood Vessels in Rheumatism. American Journal of Pathology, Vol. 2, p. 235, May, 1926.

[8]Loeb, Robert F.: Unusual Manifestations of Rheumatic Fever in Relation to the Newer Concepts of the Disease. Medical Clinics of North America, Vol. 14, p. 1539, May, 1931.

[9]Gerstley, Jesse R.: Rheumatic Fever, Subacute Bacterial Endocarditis, and Focal Infection. Medical Clinic of North America. Vol. 14, p. 1231, March, 1931.

[10]Clawson, B. J.: Bacteriology of Acute Rheumatic Fever. Minnesota Medicine, Vol. 14, p. 1, January, 1931.

[11]Swift, H. F., Hitchcock, C. H., Derick, C. L., and McEwen, C.: Intravenous Vaccination With Streptococci in Rheumatic Fever. American Journal Medical Sciences, Vol. 181, p. 1, January, 1931.

RHEUMATIC HEART DISEASE*

CLOUGH T. BURNETT, M.D.
DENVER

Heart disease may be divided into three general age groups and these in general represent etiological groups. Up to the age of forty the great majority of cases of heart disease are rheumatic in origin. Twenty-five per cent of all cardiac deaths fall in this period[1]. Of 500 children observed in a heart clinic by Wilson[2] and her associates, 12 per cent died and 88 per cent of the deaths were due to rheumatic heart disease. In New York City[1], heart disease was found to be the leading cause of death among school girls. Among school boys it ranks second only to accidental death. The same records show that heart disease stands second as the cause of death in young adults between the ages of fifteen and nineteen years.

The second age period in heart disease is from forty to sixty years, when syphilis is the most important cause of death. The third period extends from sixty years on, when cardiac deaths are chiefly due to degenerative changes.

It is unfortunate that we have no satisfactory morbidity statistics since heart disease and rheumatic fever are not reportable diseases, but Emerson[3] estimates that for every death from heart disease there are probably seventeen people suffering from heart disease, whereas there are only seven cases of tuberculosis for every death.

The incidence of family infection is about that of tuberculosis. St. Lawrence showed that in 50 per cent of families two or more persons had rheumatic fever. While there is usually a low grade of contagiousness, rheumatic fever may assume epidemic proportions. It appears probable that the lungs serve either as a portal of entry for rheumatic infection or as a source of reactivation. Numerous authors have called attention to the relationship at times observed

*Read before the sixty-first annual session of the Colorado State Medical Society at Colorado Springs, September 16, 1932. Second paper of "Symposium on the Arthritides."

between broncho-pneumonia and rheumatic carditis.

Coburn[4], having noted that rheumatic fever is extremely uncommon in the tropics, transported ten patients with active rheumatic fever from New York to Porto Rico for a period of six months, so far as possible avoiding any change in the management of these patients other than that of climate. In brief, his results showed that the rheumatic process, severe in New York, disappeared clinically during six months in the tropics, and evidenced itself with sudden reappearance of symptoms in some instances shortly after the return of these patients to New York.

Rheumatic fever is especially invasive in early to middle childhood and at this age when its onset is especially insidious, the visceral phenomena (carditis, etc.) are more frequently observed than at a later period when arthritic phenomena predominate. Puberty appears to be a critical period, but following this the tendency to rheumatic infection diminishes.

Because of the intimate relationship which exists between rheumatic fever and chorea, it is generally assumed, though by no means proved, that the infectious agent is identical. The incidence of the appearance of rheumatism antecedent to chorea varies according to various authors from 9 to 71.5 per cent. While these figures appear contradictory, it must be borne in mind that there is often great difficulty in determining the presence of fleeting articular involvement, that vague joint and muscle pains are not always susceptible of exact classification, and that the rheumatic infection may not become manifest until after the chorea has passed away. Nodules occurring in the vicinity of joints in chorea are, according to Kaufmann[5], analogous to Aschoff bodies and hence furnish further evidence of the etiological unity of these two diseases.

In the present state of our knowledge it is wise to search diligently for a history of frank or masked chorea in childhood in connection with the obtaining of the history of any cardiac patient.

The time allotted to this paper prevents a review of the literature—much of it recent—of the bacteriological studies in rheumatic fever and rheumatic heart disease. There appears, however, to be a unanimity of opinion that some form of streptococcus, or perhaps many forms, are capable of producing rheumatic fever and its sequel, rheumatic heart disease. In addition to our lack of accurate knowledge as to the causative organism, we are likewise uncertain as to whether there is direct bacterial invasion in all cases, or whether there is simply a local tissue reaction, allergic in nature, to toxins produced at some distant bacterial focus.

Limitation of time likewise prevents any extensive consideration of pathological changes, but it should be stressed that rheumatic carditis is usually a pancarditis, that while the acute involvement of the pericardium and myocardium is usually transient and clears with little or no permanent impairment of these tissues, that of the endocardium usually leads to deformity with resultant hindrance to the filling and emptying of the heart chambers—a condition which secondarily leads to muscle damage. Laségue[6] wrote, "Rheumatism licks the joints, the pleura and meninges, but bites the heart." The earlier descriptions stressed the importance of valvular lesions and of the Aschoff nodule as an evidence of the myocardial lesion, but more recent studies, notably those of Klotz[7], have shown that "certain portions of the arterial system are as frequently attacked in rheumatism as is the musculature of the heart." Klotz, Albutt[8], and Von Glahn[9] stress the importance of aortitis, aneurism, and peripheral vascular lesions in rheumatic fever. Albutt states that rheumatic aortitis is not rare, but usually goes unrecognized: being generally superficial, it is often painless and in most cases arouses no symptoms. Numerous other authors cite cases of aortitis and aneurism, in children, of rheumatic origin and often associated with typical anginal symptoms. Myocarditis may occur in the absence of demonstrable valvulitis. Coronary changes have not been considered of importance in rheumatic heart

disease until very recently. Perry[10] in 1930 reported eight autopsy cases of rheumatic fever carditis showing coronary changes. This study was incited by the findings at the autopsy of a child who during life suffered from typical anginal pain in the course of a severe rheumatic carditis. The main branches of the coronary arteries showed severe intimal thickening, with a considerable reduction in size.

Any discussion of coronary and myocardial changes in rheumatic fever and rheumatic heart disease would be incomplete without a reference to the electrocardiographic evidence of these changes. Peel[11], Wyckoff[12], et al., have noted changes in the T wave and wide and inconstant variations in the conduction time. Certain authors[12] have attempted to formulate diagnostic criteria based upon the type and degree of T wave changes. A rather hurried review of the material in the Colorado General Hospital fails to substantiate these claims. For the present it would seem preferable to depend upon evidence of arrhythmias, of conduction disturbances between the auricles and ventricles or within the ventricles, and abnormal preponderance of one side of the heart. Not infrequently the electrocardiogram will furnish the only sign of cardiac involvement—in fact, cases have been reported in which these changes have occurred before any other evidence of rheumatic infection had become manifest.

The question as to the frequency of carditis in rheumatic fever has attracted considerable attention. Referring to rheumatic fever, Swift[13] states, "The infection in childhood leads more frequently to cardiac sequelae; indeed, it is often questionable whether the first tissue to be attacked by the virus in the early years of life is not that of the heart." In a series of eighty-one[14] rheumatic fever patients, he obtained electrocardiographic evidence of functional cardiac disturbance in over 90 per cent. Wilson[2], et al., state, "The heart is probably always affected at the onset of this (rheumatic fever) disease."

All recognize the tendency of mitral stenosis to remain "silent" throughout many years after the acute rheumatic attack, yet there must in many cases be some progress during this interval. Riesman and Small[15] conclude that "the cardiac involvement is a part and parcel of the rheumatic process and is no more a complication or a sequela than is involvement of the shoulder joint a day or two after that of the knee joint." Certain other authors state that they have never seen a child below ten years of age suffer from rheumatic fever without involvement of the heart. Mackie[16] analyzing 366 cases of rheumatic fever, found that at five years of age 61.5 per cent, and at ten years 78 per cent, presented evidence of carditis in the first attack. Washburn[17], in a recent paper read before the Denver County Medical Society, stated that he was certain carditis did not always occur, that he had followed a considerable number of children in which there was never any evidence of carditis. Certainly the failure to demonstrate carditis during an attack is insufficient proof of an intact heart since the murmurs of endocarditis may only be demonstrated months after an attack.

As a means of prevention of rheumatic fever in childhood, tonsillectomies have been extensively performed on the theory that the tonsils represent the primary site. Certain it is that the incidence of rheumatic fever is greatest in the young where there is an excess of lymphoid tissue. Swift's series[15] show that tonsillitis is an antecedent of rheumatic fever in about 50 per cent of cases; but the results of tonsillectomy have been disappointing in the prevention of rheumatic carditis. A tonsil stump may retain sufficient infection to cause a recurrence or an initial rheumatic infection. Riesman and Small[15] obtained cultures of streptococcus cardio-arthritides from the "superficial sites in the pharynx" and suggest that surgical removal of the tonsils will not eradicate these foci. It is probable that the tonsils are only one of the portals of entry and that any infection of the upper respiratory tract may prove equally responsible.

At the present time we have no certain method for the prevention of rheumatic infection in childhood, but much can be ac-

complished toward the prevention of cardiac sequelae if the earliest manifestations of rheumatic carditis are recognized. Childhood rheumatic carditis may occur in a mild form with symptoms only of undue fatigue, pallor, loss of weight and appetite, and only slight dyspnea on exertion. On examination, aside from moderate anemia and undernutrition, with slight tachycardia, there may be no demonstrable signs. A heart in decompensation indicates an actively infected heart, and hence a failing heart.

When rheumatic fever is denied, search should be made for chorea, frequent tonsillitis, fleeting growing pains, and purpura. Frequent and severe infantile and adolescent pneumonia, pleurisy, and painful conditions of the chest may be the earliest evidence of heart disease.

Rheumatic carditis ordinarily dates from childhood rheumatism. Every rheumatic child, if not actually, is potentially a cardiac patient. Even in the absence of demonstrable carditis the child with rheumatic fever or chorea should be treated as a cardiac patient, which means, primarily, rest over a long period. With such a treatment the physician will cure many early cases of cardiac rheumatism and, if not so fortunate, will at least prevent many of the sequelae which determine whether the child should enjoy comparative health or invalidism.

REFERENCES

[1]Smith, C. H., and Sutton, L. P.: Heart Disease in Infancy and Childhood. Clinical Pediatrics, XVIII, Appleton, 1930.

[2]Wilson, M. G.; Lingg, Claire, Croxford, Geneva: Statistical Studies Bearing on Problems in the Classification of Heart Disease. Heart Disease in Children, Am. Heart J., 4:164-195, December, 1928.

[3]Emerson, Haven: Survey Graphic, 53:113-118, November 1, 1924.

[4]Coburn, A. F.: Factor of Infection in the Rheumatic Stage, Williams and Wilkins, Baltimore, 1931.

[5]Kaufmann: Pathology, Riemann Translator. Blakiston, 1929.

[6]Laségue, Ernest Charles: Études Médicales, Paris, Asselin and Cie., 1884.

[7]Klotz, Oscar: Arterial Lesions Associated With Rheumatic Fever. J. Path. and Bacteriol. 18:259-269, 1913-14.

[8]Allbutt, Sir Clifford: Diseases of the Arteries, MacMillan Co., 1915.

[9]Von Glahn, W. C., and Pappenheimer, A. M.. Rheumatic Disease of the Auricles and Blood Vessels. Trans. Assoc. Amer. Phys. 43:203, 1928.

[10]Perry, C. B.: Main Branches of Coronary Arteries in Acute Rheumatic Carditis. Quart. J. Med. 23:241-244, April, 1930.

[11]Peel, A. A. F.: Transient Inversion of the T Wave in Acute Rheumatism With Cardiac Complications. Glasgow Med. J. 111-112:291, 1929.

[12]Wyckoff, John; DeGraff, Arthur C., and Parent, Solomon: The Relationship of Auriculo-Ventricular Conduction Time in Rheumatic Fever to Salicylate Therapy. Am. Heart J. 5:568-573, June, 1930.

[13]Swift, Homer F.: Oxford Medicine, Vol. V, New York; Oxford University Press.

[14]Swift, Homer F.: Rheumatic Fever. Am. J. M. Sc. 170-631-647, November, 1925.

[15]Riesman, David, and Small, James Craig: Rheumatic Fever: Clinical Manifestations, Etiology and Treatment. Ann. Int. Med. 2:637-644, January, 1929.

[16]Mackie, T. T.: Prognosis and Treatment of Rheumatic Infection. Am. Heart J. 3:31-44, October, 1927.

[17]Washburn, A. H.: The Prevention of Heart Disorders in Early Life. Colo. Med., 28:338, August. 1931.

SURGICAL FORMS OF NON-TUBERCULOUS JOINT DISEASES*

CHARLES E. SEVIER, M.D.
DENVER

A variety of cases of non-tuberculous joint disease comes into the hands of every general and orthopedic surgeon each year. To enumerate and discuss these various conditions in our allotted time is obviously out of the question. I shall, therefore, simply mention some of the more commonly encountered diseases of this group and discuss them in a cursory way in connection with the lantern slide demonstration.

Acute infective arthritis, unquestionably the most important, as well as the most disabling non-tuberculous joint affection, alone will be discussed in this paper. Perthes' or Legg's disease, osteo-arthritis, toxic arthritis, separation of the capital epiphysis of the femur, and acute infective arthritis are perhaps the most common conditions of this group which the surgeon is called upon to diagnose and treat.

If we are able to teach the graduating med-

*Read before the sixty-first annual session of the Colorado State Medical Society at Colorado Springs September 16, 1932. Third paper of "Symposium on the Arthritides."

ical student and the young physicians and surgeons to recognize the symptoms and signs of a beginning suppurative hip joint, as quickly as they are apparently able to diagnose acute appendicitis, we will at once reduce tremendously a great number of permanently crippled children and young adults.

Etiology

Acute infective arthritis is almost invariably a metastatic infection secondary to some focus elsewhere, the most common source, in our experience, being the ordinary sore throat. Organisms from the blood stream are eventually deposited in the synovial membrane of the affected joint and the local disease is thus established. The staphylococcus, pneumococcus, and streptococcus are usually the responsible organisms, the staphylococcus being the common one in the cases we have seen. Staphylococcal infections produce thick pus early, and this variety is serious from the standpoint of functional result because the cartilage is destroyed at an early stage. Fraser, of Edinburgh, who has written an excellent monogram on this subject, states that the earliest pathological change is an engorgement of the synovial vessels, which is accompanied by an accumulation of fluid within the interior of the joint. At first serous, it becomes opaque and subsequently purulent. The further stages of the pathology will depend upon treatment. If adequate early drainage is established the joint should recover. If treatment is long delayed, the joint will be destroyed, and osteomyelitis develops.

Clinical Picture—(Diagnosis)

Since the hip is the joint most frequently involved, a description of the clinical features of such a case follows: The patient as a rule is acutely ill. Upon questioning, we usually learn that the child has recently had a sore throat or some other form of acute infection. The temperature is high, 101° to 104°, with a corresponding increase in pulse rate. Pain, a prominent symptom, is at first generally referred to the lower part of the thigh, the knee, calf, and even to the foot. For the patient, this is indeed unfortunate, for far too often these cases are treated for rheumatism or some obscure disease of the knee for weeks before the true condition is recognized. A varying degree of leucocytosis is always present. In the early stage of the disease, a white count of from 11,000 to 14,000 is the rule, though the number of white cells may be much higher. On examination, the thigh is found to be slightly flexed, often a little externally rotated, and the patient is unwilling to move the limb. There may be some fullness of the tissues about the hip, as compared with the healthy side.

Beginning with the foot, a careful examination of the joints reveals normal range of motion of the ankle and knee in all directions. An attempt to manipulate the affected hip joint, however, elicits extreme pain, and motion in any direction is at once restricted by the very marked protective muscle spasm. An x-ray examination of the joint is negative at first, except for some cloudiness of the surrounding soft parts, due to edema and inflammatory reaction. With these few simple, but definite, facts and findings at hand, the diagnosis of the true condition is quite clear-cut.

Treatment

In no condition is prompt surgical interference more definitely indicated than in acute septic infection of the hip. Under general anesthesia and rigid aseptic technique, the joint should first be aspirated by a sufficiently large aspirating needle. One should be absolutely sure that the needle penetrates to the interior of the joint in this procedure. In some of the milder cases, when only a small or moderate amount of serous thin fluid is obtained in the syringe, open operation on the joint may not be necessary. The hip is immobilized, however, in moderate abduction and extension by a plaster of Paris spica, extending from the costal margin to the ankle. Before application of the cast, traction straps of moleskin adhesive are applied, and traction weight adjusted when the patient is returned to bed.

If following this method of treatment the temperature subsides during the next day or two, the treatment is continued. If on

the other hand, the temperature and white cell count remain elevated and distinct improvement is not noted, the hip joint should be opened and drained. In all cases where frank pus is obtained at the time of aspiration, the hip joint is opened at once. In each of our cases we have employed the operation of posterior arthrotomy as described by Ober. The details of this procedure appear in the J. A. M. A., November 8, 1924, Vol. 83, p.p. 1500-1502. This posterior approach has decided advantages over the anterior approach to the hip. Failure to establish adequate drainage and to maintain proper immobilization of the joint will result in rupture of the joint capsule, followed by a pathological dislocation of the head of the femur. Osteomyelitis of the femoral neck and upper shaft will likewise occur in neglected cases. This means a shortened leg, marked deformity, and a hopeless, permanent cripple.

REFERENCES

(1) Surgery of Childhood: Fraser Vol. I. William Wood & Co. 1926.

(2) Orthopedic Surgery: Whitman. Lea and Febiger, 1927.

(3) Fractures and Dislocations: Wilson and Cochrane. J. B. Lippincott Co., 1925.

(4) Posterior Arthrotomy of the Hip Joint: Frank R. Ober. J. A. M. A. Nov. 8, 1924, Vol. 83, pp. 1500-1502.

ARTHRITIS DEFORMANS*

CHARLES N. MEADER, M.D.
DENVER

Arthritis deformans is one of the most common and widespread diseases and a potent cause of economic disability. In Sweden, according to Pemberton[1], articular rheumatism causes 9.1 per cent of the cases of "permanent pensionable disability" against 5.8 per cent due to tuberculosis.

The American Committee on Rheumatism has officially adopted the terms "Atrophic" and "Hypertrophic" to designate the two chief types. These terms lead to much confusion, though they have the sanction of long usage, for each type presents both atrophic and hypertrophic changes at different stages in the same joint and moreover clinical and pathological changes usually regarded as typical of each type may be found in different, or even in the same, joints in the same patient. The older generic term, "Arthritis deformans," as used by McCrae[2] with the designation as sub-types, "Atrophic," "Hypertrophic" and, for the not infrequent overlapping type, the term "Mixed arthritis," as suggested by Crowe[3], seems preferable until such time as clear proof shall be obtained that these sub-types differ in their etiology. The time assigned to this paper necessitates sharp limitations; accordingly only etiology and treatment will be discussed briefly.

Etiology

Conceptions of etiology may be broadly grouped as metabolic and infectious. These, as Pemberton[1] has pointed out, may be complementary rather than mutually exclusive. Dealing first with metabolic changes, there is no evidence that the arthritic presents any significant or constant alteration in blood nitrogen, uric acid, carbon dioxide combining power, blood calcium, inorganic phosphorus, total blood fat or blood cholesterol, nor in the lactic acid of the blood, urine, or sweat. Studies of renal function show no impairment attributable to the arthritis. Two general metabolic functions do show alterations which are perhaps of significance. The basal metabolic rate was reported by Pemberton to be below minus 6 in eleven of twenty-nine cases and, among 200 cases, Swaim and Spear[4] found the basal rate abnormal in 39 per cent, though this was not constantly high or low. Of great interest is the lowered sugar tolerance, or delayed sugar removal, found by Pemberton in 60 per cent of the series studied. It is especially significant that this abnormality tended to disappear as patients improved

*From the Department of Medicine, University of Colorado School of Medicine. Read before the sixty-first annual session of the Colorado State Medical Society at Colorado Springs, Sept. 16, 1931. Fourth paper of "Symposium on the Arthritides."

and might abruptly cease following removal of a focal infection.

The absence of evidence of marked general metabolic changes does not at all preclude the possible role of even profound local disturbances of tissue metabolism and evidence is accumulating that these may play an important part. There may be cited the increased oxygen saturation of the peripheral blood, the disturbed capillary circulation in the extremities, and the altered temperature of the extremities in the arthritic, demonstrated by the thermo-couple, reported by Pemberton[5]. Further, the same author[6] has confirmed the results earlier secured by Wollenberg and has produced a bony overgrowth strongly suggesting hypertrophic arthritis of the patella in each of six dogs by ligation of the arteries leading to that bone. Rosenow's[7] finding of obliterat-erating endothelial proliferation in the finer blood vessels of the joint capsule in experimentally produced infectious arthritis in rabbits is of interest in this connection.

The literature of focal infection in its relation to arthritis has become voluminous. A fair appraisal of the controversy in this field is greatly hampered by the apparent failure of many to appreciate certain fundamental factors which may be briefly touched upon. First, the obvious fact that if pathogenic organisms be present in several foci and are producing distant disease processes, the eradication of only part of these foci cannot reasonably be expected to produce improvement in all, perhaps not even in most, patients. Neither can cultures which include only part of the foci, and which produce nonspecific bacteria, be counted sound evidence against the bacterial nature of the disease. Second, there is a common belief that to prove an etiologic connection, bacteria must be constantly demonstrable in the joints or related tissues. The list of known infections in which distant toxic or anaphylactic effects, unassociated with the presence of bacteria, are proved, is too long to make this concept a novel one and, indeed, much of the pathology of chronic arthritis suggests the mechanism of long-continued or recurring toxic or anaphylactic influences. Third, there exists a notion that arthritis deformans as a whole, or in its several types, must be constantly related to a specific variety of micro-organism. There is no evidence to controvert the view, and much to support it, that different kinds of more or less closely related bacteria may, either through their own products or through the products formed by them from the surrounding tissue, give rise to similar joint changes. Fourth, there is commonly a failure to appreciate the commonplace fact that focal infection which may in one patient produce the most extensive disease, may in another give no constitutional or local manifestations; this variability of effect may spring from either a high or low virulence or a high or low degree of elective affinity in the organism present or from a high or low degree of general or local resistance to it on the part of the patient harboring the infection. Such variable resistance may be conditioned by many factors (e. g. fatigue, diet, etc.), which vary from time to time.

These conditions make the interpretation of statistics of the incidence of focal infection and the results obtained by its removal or by the use of specific vaccines, most difficult to compile equably or to interpret accurately.

The known facts may be summarized as follows. First, the surgical removal of such infected areas as teeth or tonsils has repeatedly been followed by marked amelioration or cure of chronic arthritis previously unimproved by other forms of treatment. Second, bacteria, chiefly streptococci of low virulence, often tending to be anaerobic, have been repeatedly isolated from the blood-stream, from lymph-glands related to the affected joints, and from the affected joints themselves, in patients presenting the atrophic type, less frequently the hypertrophic type. (Davis[8], Rosenow[7], Moon and Edwards[9], Richards[10], Crowe[3], Forkner, Shands, and Poston[11], Hadjopolous and Burbank[12], and Cecil, Nichols and Stainsby[13, 14]). Third, complement fixation tests and agglutination reactions have often indicated a high specificity among streptococci of varying strains, possibly among staphylo-

cocci, thus isolated. (Hastings[15], Crowe[3], Burbank and Hadjopolous[16], and Cecil, Nichols and Stainsby[13, 14]). Fourth, such bacteria isolated from the above sites in arthritics, have repeatedly produced on injection into animals, lesions having the clinical and pathological characteristics of arthritis deformans of the atrophic type in man. (Rosenow[7], Nathan[17], Burbank[18], Cecil, Nichols and Stainsby[13, 14]). Fifth, bacteria of these types, isolated from the above sources and from foci of infection harbored by the patient, when used as a vaccine in suitable dosage, are capable of producing specific focal reaction in the affected joints and in areas of focal infection; such vaccines, if suitably prepared and administered in suitable doses, are capable of producing marked improvement or symptomatic cure in an important proportion of patients with arthritis deformans. (Crowe[3], Burbank and Christensen[19]). Certain authors believe vaccine therapy effective in both hypertrophic and atrophic forms, a view from which Cecil dissents and is, like Pemberton, apparently skeptical of all vaccine. It is undoubtedly significant that Crowe and Burbank use minute doses and avoid reactions, while most others use large doses and court reactions. In the writer's series both a streptococcus and a staphylococcus have requently been found present, often in different foci; both have usually been capable of producing a specific focal joint reaction and of producing specific improvement when administered as a vaccine in either atrophic, hypertrophic, or mixed types. This difference possibly arises from the fact that minute doses are used and reactions largely avoided.

Much controversy exists over a specific variety of streptococcus or staphylococcus. This will probably be resolved when the mutations among these species are better understood and when the view becomes more generally accepted that, though the streptococcus and staphylococcus are usually culpable, any of their varieties and at times other bacteria are capable of setting up conditions producing essentially the same clinical picture.

In our present state of knowledge, a fair statement of the probable etiology might be as follows: that arthritis deformans, certainly of the atrophic type, probably of the hypertrophic type, is initiated by bacterial action and that these bacteria may be of different varieties or strains. The evidence is not sufficiently clear to warrant a dogmatic opinion whether the pathological changes are due to (a) the direct effect of bacteria present in the joint tissues, (b) the effect of bacterial toxins acting upon normal or upon allergic joint tissues, (c) the effect of bacterial or tissue split products produced at the site of the focal infection acting upon joint tissue, (d) to either bacterial toxins or split products producing changes in the general metabolism, (e) to either bacterial toxins or split products acting upon the nervous or circulatory mechanism or both to produce secondary trophic changes in joint structures, or (f) to a combination of several of these factors. In the writer's present opinion both direct toxic effect upon allergic joint tissue and trophic changes due to toxic effects upon local nerve and blood supply play a determining part in most patients.

Treatment

There are two requisites for useful treatment. The first is recognition of the fact that a careful and complete study of the patient for foci of infection, for dietetic and metabolic errors, and for concomitant pathologic conditions is necessary at the outset. Such a study may at once disclose the probable underlying condition, or it may unearth a half dozen possible factors whose relative importance and management can only be worked out by a prolonged period of observation, often only by a process of trial and error. A second requisite is recognition of the fact that arthritis, even in its acute stage, is essentially a chronic problem and that, while an occasional brilliant result may be obtained at a stroke, the average patient requires a protracted campaign. The adoption by profession and laity of an attitude of patience and perseverance, as toward tuberculosis, is most important.

The aim of rational treatment is five-fold: first, the eradication of all possible foci of

infection or, if ineradicable, treatment to promote as efficient drainage as possible; second, the upbuilding of the patient's resistance to any infection present; third, the correction of any abnormal metabolic state so far as possible; fourth, the relief of pain and the promotion of comfort; and fifth, the preservation of function where unimpaired and attempts at its restoration where functional disability has occurred.

Among foci of infection, the teeth and tonsils are always attacked. Wholesale removal of both on mere suspicion is fortunately becoming less frequent, but these important foci are nevertheless occasionally missed. Most commonly overlooked are devitalized teeth without apical abscesses, infections of a single root in multiple-rooted teeth, allowing the tooth to give a misleading vital response, hypercementosed roots, small abscesses at the bifurcation of multiple-rooted teeth, and small gingival abscesses. In the tonsils the small, buried, fibrous variety, with an abscess deep in the fossa is most likely to be missed. Infections of the paranasal sinuses, despite their very great etiologic importance, are usually disregarded. The most common errors are to rule them out because the sinuses transilluminate clear, forgetting that the ethmoids cannot thus be ruled out, reliance upon technically imperfect radiographs, and disregard of slight evidences of infection as of no importance; perhaps the most common error is to forget the sinuses altogether. In the lungs, bronchiectatic areas, a small pulmonary abscess, or an unresolved pneumonia may occasionally provide a background of infection; it is probable that residual peribronchial infections may also serve as points of absorption. In the abdomen, chronic infections of the appendix or gall-bladder may act as foci and, if dormant, may be brought to light only by searching study of the patient. Infections of the bowel itself, the organisms being present either in the contents or more probably in the bowel wall, though not necessarily as an ulcerative colitis in the sense of Bargen, are undoubtedly much more frequent etiologic factors than has hitherto been appreciated. Burbank[1] found a pathogenic streptococcus in the stool in over 90 per cent of his arthritics. This has been emphasized by Crowe[3], and in the small series thus far studied on this point by the writer, a streptococcus, reacting specifically on the affected joints, has been isolated with striking frequency. The prostate and seminal vesicles in man, the Fallopian tubes and cervix uteri in women, and the renal pelvis and urinary bladder in both sexes may occasionally harbor infections of etiologic importance though they are much less common offenders.

The upbuilding of the patient's resistance includes the use of vaccines. Whenever possible these should be made from the patient's own strains, isolated from apparently causal foci or from the blood, lymph glands, or joints. Where this is impossible, stock vaccines, uniting several strains isolated from other patients with arthritis, may occasionally produce excellent results. Dosage is of the greatest importance. The aim is not to build immunity in an uninfected animal, but to desensitize one already infected and overburdened. The aim is then not to produce reactions; if repeated and of more than the slightest degree, they may be productive of much harm, even of a widespread advance of the disease. The dosage therefore must be small, infinitesimally small judged by usual standards, and changes in it must be guided by the condition of the patient and of the disease, not by any arbitrary dosage scheme. Much of the present discredit into which vaccine therapy has fallen in this and other suitable conditions is due to unwisely chosen foci, improperly prepared vaccines, disregard of proper dosage, or to a combination of these. Protein shock therapy may be mentioned here. While in occasional cases marked immediate improvement may be seen following it, this is usually transient and the danger of a serious exacerbation or of irreparable damage is too great to warrant its use.

The upbuilding of resistance includes also all the measures applicable in other chronic infections: avoidance of mental and physical fatigue, fresh air, such general exercise as the condition of the joints permits, sunlight,

either natural or artificial, attention to the secondary anemia so frequently present, and a diet adequate in vitamins which may often be supplemented with cod liver oil with apparent benefit. It does not include a high-calory diet.

The work of Pemberton, confirmed by Fletcher[20], has shown that intolerance to a high calory diet and specifically a lowered carbohydrate tolerance is a frequent concomitant of the arthritic state, and Pemberton's use of a low-calory diet is an important advance in therapy. It is not applicable to all patients but in many is most useful. In patients with low basal metabolic rate, thyroid extract or thyroxin is indicated and occasionally seems to produce specific improvement; it may rarely do so in others. There is no evidence that ovarian preparations in so-called menopausal arthritis, or other gland preparations in any type, are of benefit. No warrant exists for withholding meat or "acid" fruits save in patients who show an idiosyncrasy to these substances. Correction of the frequently accompanying intestinal indigestion by regulation of the constituents of the diet or by various soured milk preparations often seems to benefit the joints.

In the relief of pain, local heat in the form of hot applications, dry or wet, baking, heat lamps of various types, or rubefacient applications are the most useful. This may be brought into relation with the dilation by heat of the contracted capillary areas and local ischemia probably present. The relief of pain experienced after massage is probably due to this same mechanism. Relief of pain by posture, such as pillows for knees, hands, or elbows, and especially by splints should be used very cautiously with full recognition of the danger of rapidly developing contractures. Among drugs, members of the salicylate, acetanalid, and cinchophen groups in varying combinations, and, for occasional use, codein, are most likely to be useful. All are of uncertain value and often disappointing in these cases. Oxyl-iodide seems not to have fulfilled its earlier promise.

The prevention of deformity by contractures or adhesions and, once present, its alleviation so far as possible, are most important functions of the physician in the care of the chronic arthritic. Appropriate specialized orthopedic means with the use of apparatus may often be necessary, but three measures are within the reach of every physician—massage, passive motion, and active exercises. The applicability of the simplest of these may be learned with very little trouble, and they may be taught with no great expenditure of time to any intelligent and conscientious member of the patient's family. Their patient use at the appropriate stage will often go far to check or improve an apparently permanent and crippling deformity.

REFERENCES

[1]Pemberton, R.: Arthritis and Rheumatoid Conditions. Lea and Febiger, Philadelphia, 1930.

[2]McCrae, T.: Arthritis Deformans. Oxford Medicine, Oxford University Press.

[3]Crowe, H. W.: A Bacteriology and Surgery of Chronic Arthritis and Rheumatism. 1927, Oxford University Press.

[4]Swain, L. T., and Spear, L. M.: Basal Metabolism in Chronic Arthritis. Boston Med. and Surg. Jour. 197:350 (Sept. 1) 1927.

[5]Wright, L. M., and Pemberton, R.: The Peripheral Surface Temperature in Arthritis, Arch. Int. Med. 45:147 (Jan.) 1930.

[6]Goldhaft, A. D.; Wright, L. M., and Pemberton, R.: The Production of Hypertrophic Arthritis by Interference With the Blood Supply. Am. Jour. Med. Sc., 180:386 (Sept.) 1930.

[7]Rosenow, E. C.: Etiology of Arthritis Deformans, Preliminary Note, Jour. Am. Med. Ass'n, 62:1146 (Apr. 11), 1914, and Subsequent Papers.

[8]Davis, D. J.: Chronic Streptococcus Arthritis. Jour. Am. Med. Ass'n, 61:724, (Sept. 6), 1913.

[9]Moon, V. H., and Edwards, S. H.: Results of Blood Cultures in Rheumatoid Arthritis. Jour. Inf. Dis. 21:154, (Aug.), 1917.

[10]Richards, J. H.: Bacteriologic Studies in Chronic Arthritis and Chorea. Jour. Bacteriology. 5:511, (Sept.), 1920.

[11]Forkner, C. E.; Shands, A. R., and Poston, M. A.: Synovial Fluid in Chronic Arthritis. Arch. Int. Med. 42:675, (Nov.), 1928.

[12]Hadjopoulos, L. G., and Burbank, R.: A Preliminary Study Bearing on the Specific Causative Factors of Multiple Infective Arthritis. Jour. of Bone and Joint Surg. 9:278, (April), 1927.

[13]Cecil, R. L.; Nichols, E. E., and Stainsby, W. J.: The Bacteriology of the Blood and Joints in Chronic Infectious Arthritis, Arch. Int. Med. 43: 571, (May), 1929.

[14]Cecil, R. L.; Nichols, E. E., and Stainsby, W. J.: The Etiology of Rheumatoid Arthritis. Am. Jour. Med. Sc. 181:12, (Jan.), 1931.

[15]Hastings, T. W.: Complement Fixation Tests in Chronic Infective Deforming Arthritis and Arthritis Deformans. Jour. Exp. Med. 20:52, (July), 1914.

[16]Burbank, R., and Hadjopoulos, L. G.: Serologic Significance of Streptococci in Arthritis and Al-

lied Conditions. Jour. Am. Med. Ass'n, 84:637, (Feb. 28), 1925.

[17]Nathan, P. W.: Neurologic Condition Associated with Polyarthritis and Spondylitis. Am. J. Med. Sc. 152:667, (Nov.), 1916.

[18]Burbank, R.: A Study of the Streptococcus in the Etiology of Arthritis. Bull. N. Y. Acad. of Med., 2nd Series, 1929, V. 176.

[19]Burbank, R., and Christensen, B. E.: Specific Vaccine Treatment of One Thousand Cases of Chronic Arthritis, With Results and Clinical Observations. Jour. of Bone and Joint Surg. 13:246, (Apr.), 1931.

[20]Fletcher, A. A.: Dietetic Treatment of Chronic Arthritis and Its Relation to the Sugar Tolerance. Arch. Int. Med. 30:106, (July), 1922.

DISCUSSION

Leonard Freeman, Denver: I want to say a word that may be of interest, in calling attention to the fact that arthritis deformans is one of the oldest diseases the human race has been subject to. In France, there are human remains dating back to ancient times, perhaps ten or twelve thousand years ago, showing that arthritis deformans was not uncommon. In recent studies of Egyptian mummies it was found to be a common disease. It seemed to be concentrated in certain spots in Egypt, which might mean that these were places where people went to be cured. In prehistoric human remains in Peru, Chile and Bolivia, dating back no one knows how many thousands of years, the disease was quite common, as I have seen in bones in the Museums in Lima and in La Jaz, in Bolivia. In Mexico and Central America, among the Aztecs, Toltecs and Mayas, the disease was common, and in our own Southwest, in the remains dug up in cliff dwellings, the disease is not unknown. It is interesting also to understand that pyorrhea dates back just as far, and was a very common trouble. It may mean something in the etiology of arthritis deformans, and it may not.

CASE REPORTS

BLEEDING ULCER OF MECKEL'S DIVERTICULUM

H. R. McKEEN, M.D.
DENVER

Meckel's diverticulum is the result of the incomplete obliteration of the vitello-intestinal duct which connected the yolk sac with the intestine during embryonic development. Its incidence, according to various autopsy reports, ranges between .5 and 4 per cent of all individuals. It is about twice as frequent in the male as in the female, and its symptoms are more commonly manifested in childhood or early adult life. Normally it should undergo complete regression, but various evolutionary degrees may persist: There may be a fecal fistula or a mucus-secreting sinus at the umbilicus—food may incite the flow of gastric juice from such a structure; it may leave a fibrous cord extending from the umbilicus to the ileum—a condition predisposing to intestinal obstruction by strangulation or torsion. The communication with the intestine is usually within the lower three feet of the ileum. Its size varies from a slight out-pouching to a cyst which half fills the abdominal cavity, and the shape is that of a cylinder, cone, or club.

Being a rudimentary blind pouch, it is subject to the same disorders which have brought "fame and dishonor to the vermiform appendix" (Cobb) — inflammation, gangrene, ulceration, and perforation. It may become strangulated or may form angulation and obstruction of the intestine. Foreign bodies may lodge therein.

Microscopic studies upon Meckel's diverticulum indicate that from 16 to 50 per cent contain either gastric mucosa or mucosa resembling that of the duodenum or jejunum. Pancreatic secretion has been demonstrated in some specimens. The location of this acid- and ferment-secreting mucous membrane is most frequently found in the fundus of the diverticulum, and it is in this location, then, that ulceration takes place. However, in those cases in which it extends to the junction of the diverticulum with the gut, it is here that ulceration occurs.

The presence of this structure should be considered when an inflammatory intra-abdominal mass is adherent to or in close relation with the umbilicus, or when the symptoms simulate acute appendicitis. When at operation the symptoms are not justified in the type of appendix found, search should be made for Meckel's diverticulum. There are several cases reported in which an appendix was removed and a perforated ulcer of the diverticulum later discovered at autopsy. Its presence should be considered in the differential diagnosis of any case of melena.

The outstanding symptoms of the condition are pain and intestinal hemorrhage. The pain, strange to say, simulates that of

peptic ulcer and is frequently relieved by food and alkalies; it presents the chronic and periodic character of the peptic ulcer. Bleeding occurs in about 81 per cent of cases; it may be profuse and is often the first symptom. The blood may vary from bright to dark red; clots may be passed by bowel. The symptoms of lesions in ulcerated Meckel's diverticulum usually appear at earlier ages than similar lesions in the stomach and duodenum.

Perforation occurs in about half of the cases and usually follows pain and repeated hemorrhages, though occasionally there is no warning. It is more dangerous than perforation higher up, the contents of the ileum being more infective.

Obviously, there are no distinctive symptoms, but with history of pain and intestinal hemorrhages, ulcer of Meckel's diverticulum should be considered; x-ray may be helpful. If peptic ulcer can be ruled out, exploration should be made. The hemorrhage of intussusception is relatively slight and is mixed with mucus. In low rectal polyposis, the source of trouble can often be palpated or detected by proctoscopy. X-ray will usually demonstrate malignancy of the colon.

At operation, if Meckel's diverticulum is present and is ulcerated at its fundus, it should be removed by cautery-excision at right angles to the gut. Should ulceration be at the neck, inflammatory changes may involve so much of the gut as to necessitate a resection of that portion. This must be followed by an end-to-end anastomosis, preferably with a button.

Case Report

A rugged active man, aged 53, whose past history was negative except for occasional vague abdominal cramps (thought to be the result of lead poisoning) during the preceding twenty years, gave the following account of the onset of his present illness: He was taken with severe lower abdominal pain at 8:00 p. m., March 9, 1932; bloody stools were passed at 12:30 a. m. and several during the succeeding hours the following day. Enemata after admission to the hospital brought forth fecal matter bearing large amounts of old blood clots. After three days no more blood appeared. The man complained only occasionally of abdominal discomfort. Gastro-intestinal x-ray study on March 21 revealed no indication of gastric pathology. A large persistent defect in the duodenal cap was considered distinctive of ulcer. There was no gastric retention at the five hour period. The further excursion of the barium was normal.

At operation on March 30, examination of the stomach and first portion of the duodenum showed no pathology. The second portion of the duodenum was adherent to the gall bladder. Liberation of the adhesions exposed a small atrophic gall bladder which gave the appearance of having at some time ruptured. Exploration of the cecum and ascending colon revealed an inflammatory mass about the size of a glove finger which took origin from the ileum about fourteen inches from the ileo-cecal valve. It proved to be a Meckel's diverticulum containing an ulcer which had perforated, the area of perforation becoming adherent to the first portion of the ascending colon. The mass was dissected free and removed by clamp and cautery-excision. Convalescence was uneventful, and the patient is well and symptom-free.

Miscroscopic examination of the specimen revealed normal intestinal mucous membrane lining the pouch. A typical ulceration with perforation was found at its distal end.

SINUSITIS WITH OSTEOMYELITIS OF THE RIM OF THE ORBIT*

FRANK R. SPENCER, M.D.
BOULDER

E. D., aged 15, male, first seen in consultation on Sunday evening, June 28, 1931, at his residence.

History: Two weeks previously he had influenza. Two days ago he had gone swimming. This was followed by marked swelling and redness of the eyelids on the left. He also had very severe pain.

Examination: When I saw him the eye-

*Presented at the meeting of the Boulder County Medical Society, April, 1932.

lids were completely swollen shut. There was marked chemosis of the ocular conjunctiva, but the cornea was clear and the pupillary reactions were negative. R. & L. M. T. negative. All of the turbinates were red and swollen and there was pus in the left middle meatus. Nasopharynx and larynx were grossly negative. He was rolling and tossing in bed because of the severe pain, so that it was very difficult to examine him. He was sent to the hospital for observation.

Roentgen-ray examination: Left frontal sinus, hazy. Right, clear. Right and left ethmoid, right and left maxillary, right and left sphenoid, all clear. Outer half of upper orbital rim on left, necrotic. How far this extended back along the roof of the orbit it was impossible to say from the x-ray.

Diagnosis: 1. Sinusitis, acute left frontal with osteomyelitis of the orbital rim above on left. Left anterior ethmoidal cells, infected.

The following day an external operation was performed on the left anterior ethmoidal cells and orbit with evacuation of pus. A rubber drainage tube was inserted. He made rather a slow recovery. Swelling with fluctuation appeared at the external angular process of the frontal bone on the left and a short incision had to be made in the outer end of the eyebrow. After a rather stormy course the swelling finally subsided and he left the hospital.

Immediately after leaving the hospital he developed a sequestrum of bone at the center of the upper orbital rim on the left. With a probe it was easy to feel rough bone. Under conservative treatment with drainage at the inner and outer end of the eyebrow he finally recovered.

When the bandages were taken off and the swelling of the lids finally subsided he had symblepharon involving the lower lid. These have had to be severed twice since. At the present time the ear, nose, and throat examination is grossly negative. The eye examination is likewise grossly negative, including fundi, etc. The vision of each eye is 150 per cent. His recovery has ultimately been complete and uneventful.

PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Third Annual Health Conservation Contest

Winning and honorable mention cities in the 1931 Inter-Chamber Health Conservation Contest, sponsored by the Chamber of Commerce of the United States with the co-operation of the A. P. H. A., were announced April 22 as follows:

In the population group of more than 500,000 the winning city was Milwaukee, Wisconsin, and honorable mention cities were Baltimore, Md., Detroit, Mich., Philadelphia and Pittsburgh, Pa., and St. Louis, Mo.

In the population group of 250,000 to 500,000 Rochester, N. Y. was the winning city, and honorable mention cities were Cincinnati, O., Kansas City, Mo., Minneapolis, Minn., Newark, N. J., and Toledo, Ohio.

In the 100,000 to 250,000 population group New Haven, Conn., was the winning city, and honorable mention cities were Grand Rapids, Mich., Hartford, Conn., Syracuse, Utica, and Yonkers, N. Y.

In the 50,000 to 100,000 population group Evanston, Ill., was the winning city, with East Orange, N. J., Harrisburg, Pa., Kenosha, Wis., Pasadena, Calif., and Racine, Wis., the honorable mention cities.

In the 20,000 to 50,000 population group Brookline, Mass., was the winning city, and the honorable mention cities were Alhambra, Calif., Maplewood, N. J., Newburgh, N. Y., Orange, West Orange, N. J., and Watertown, N. Y.

For the group under 20,000 the winning city was LaSalle, Ill., and the honorable mention cities were Chestertown, Md., Lodi, Monrovia, Palo Alto, Calif., Shorewood, Wis.

Reduction in Diphtheria and Scarlet Fever

In the account of the Child Health Demonstration in Marion County, Oregon, conducted by the Commonwealth Fund from 1925-29 described in the American Journal of Public Health, April 1932, the results of some of the campaigns organized in con-

nection with the demonstration are noteworthy. There was a decrease in the incidence of scarlet fever from 79 in 1924 to 34 in 1931, and there was a decrease in the incidence of diphtheria from 265 cases in 1924 to 20 cases in 1931.

The activities have now been taken over by the local authorities and have been organized into the Marion County Department of Health.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

EDITOR: J. J. WARING, M.D.

BOOK REVIEWS

Allergy. By Warren T. Vaughan, M.D. Illustrated. St. Louis: C. V. Mosby Company, 1931. 359 pages.

Many books have appeared in the last few years on allergy and allied subjects. The majority are definitely colored by the views of the authors with such confusion as the result that only a student of the subject can really evaluate them.

In this book Dr. Vaughan has endeavored to write on the subject so the average physician and the intelligent layman can get a grasp of this increasingly important subject.

Numerous brief case reports are given of typical and unusual allergic reactions as have been encountered by the author during his very extensive experiences, much of the data applicable to this region. Unfortunately no mention is made of the rather different hay-fever pictures of this territory so important to recognize in this and neighboring states.

The theories for the treatment of the various allergic conditions are taken up in as systematic manner as possible, an extremely difficult task.

Much of this explanation has been written with the patient in mind, and with apparently the background of numerous talks of similar nature to allergic individuals, suitable in particular for the non-medical reader. Some tables given of botanical surveys are, it seems, superfluous.

A quite comprehensive bibliography forms one of the final chapters of the book and adds definite value to it.

This book can be recommended for the elementary, unconventional and non-technical manner in which the subject has been presented, with the minimal amount of personal views of the author, and perhaps of most value to the allergic laity. E. R. MUGRAGE.

Pathology for Nurses, by Eugene C. Piette, M.D. Pathologist and Director of the Clinical Laboratories of the West Suburban Hospital, Oak Park, Illinois; Consultant Pathologist, Chicago State Hospital. With 65 illustrations, some in color. Philadelphia. F. A. Davis Company, Publishers. 1932. 240 pages. Price $1.75.

Of the 170 pages of this small book, 240 are devoted to pathology. Save perhaps chapters on tuberculosis and syphilis, there is little to recommend. Obviously, without closer correlation, it is impossible to write a text of pathology for nurses. Perhaps some day a text for nurses will be written which will combine the general clinical features of the more common conditions, with the pathology, bacteriology and other pertinent information following in subheadings, not to mention the important points in nursing technique for that particular disease. The remaining pages are devoted to clinical pathology to advantage. Attention, unfortunately not favorable, is drawn to the illustrations. Many of them are archaic, and in instances like fibroma of the sacral region, chondroma of the finger, gumma of the face, and melanoma of the palm of the hand are rare and impractical. W. S. DENNIS.

Cutaneous X-Ray and Radium Therapy, by Henry H. Hazen, A.M., M.D., Professor of Dermatology, Medical Department, Georgetown University, etc. St. Louis: C. V. Mosby. Co.

The apparatus, standardization, the estimation of dosage and the technic involved is tersely but clearly described in this very excellent and practical manual on the use of radium and x-ray in the treatment of diseases of the skin.

Some twenty-five pages are given over to a discussion of diseases suitable for radiation and the effect of radiation upon the tissues; the clinical application is taken up under the various diseases.

Of much importance are the warnings of the danger of excessive dosage and the various pitfalls to be avoided. This little volume presents the subject in a clear, easily readable style, and contains a wealth of practical information.

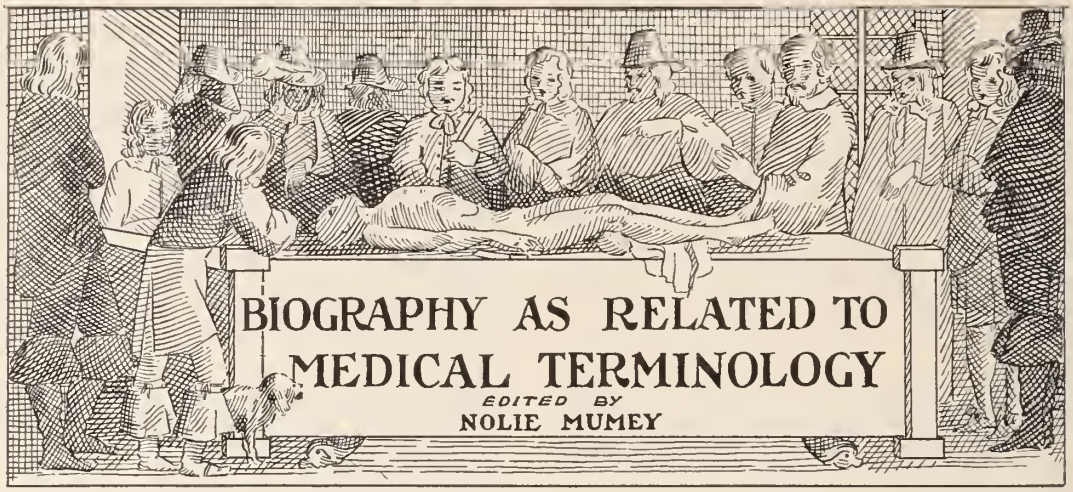
The text also contains several excellent illustrations. G. P. LINGENFELTER.

Body Mechancis: Education and Practice. Report of the Subcommittee on Orthopedics and Body Mechanics, Robert B. Osgood, M.D., Chairman. White House Conference on Child Health and Protection. The Century Co. New York, London. 166 pages, price $1.50.

This is one of a group of publications of the White House Conference, dealing with the problem of faulty posture in children. Statistics as to the prevalence of faulty posture, its relation to health and growth, posture standards for grading, and methods for prevention and correction of faulty body mechanics are discussed in detail. It is significant that this Committee finds that "Not less than two-thirds of the young children of the United States exhibit faulty body mechanics," which faulty attitudes usually continue into adult life, seriously affecting the health and efficiency of the individual.

An abstract of the discussion of this report by various authorities attending the Conference is included, and also an excellent bibliography. There is a useful appendix, containing a report of a study of posture and physical fitness in 1700 elementary school children of Chelsea, Massachusetts, conducted by the Children's Bureau of the U. S. Department of Labor. There is also included a course of corrective physical exercises as carried out in the elementary grades of the Boston City Schools.

This report is a valuable contribution to the study and solution of this difficult problem, so little appreciated and so often neglected. The findings and recommendations contained therein are of great significance and demand the interest and attention of physicians, parents, teachers, and all others concerned with child health and guidance. ATHA THOMAS.



LAENNEC

(Continued from May)

On May 30, 1826, Laennec left Paris for the last time. He hesitatingly laid aside all honors, useful labor, and traveled back to his home where he was temporarily revived by the change. The bright sunshine and sea air with agreeable surroundings made him very happy, hopeful, and ambitious for health and life. The relief, however, was short—his symptoms grew more severe, he became emaciated and at times delirious.

On the afternoon of August 13, awakening from an unnatural sleep, Laennec took the rings from his fingers and placed them on a bedside table. On being questioned by his wife why he had done that, he replied that it would soon be necessary and he did not wish to trouble anyone to do it for him. Some two hours later his prediction came true.

He was buried in a cemetery near the Parish Church where his tomb overlooks the rugged cliffs of the sea. The following epitaph is carved on the granite monument:

Ici Repose Le Corps De
Rene Theophile Hyacinthe Laennec
Medecin De S.A.R. Madame La Duchesse De Berry
Lecteur Et Professeur Royal De Medecine Au
College De France
Professeur De Clinique A La Faculte De Paris
A L' Academie Royale De Medecine
Chevalier De La Legion D'Honneur
Ne A Quimper Le 17 Fevrier 1781
Mort A Kerlouarnec Le 13 Aout 1826
Et
Son Epouse Nee A Brest En 1779
Morte A Kerlouarnec Le 2 Aout 1847

This inscription appears on the house where he died:

Ici Est Mort
R.-T.-H. Laennec
1781-1826
Professeur A La Faculte De Medecine Et Au
College De France
Traite De L'Auscultation Mediate 1819.

His widow was granted a pension of 3,000 francs a year by Charles X which was stopped at the Revolution of 1830. She died on August 2, 1847.



Rene Theophile Hyacinthe Laennec

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

COLORADO AT THE A. M. A.

COLORADO "did itself proud" at the Eighty-third Annual Session of the American Medical Association, conducted May 9 to 13 at New Orleans. Our Society was well represented on the programs of the various sections, through a prank of fate we were more than doubly represented in the House of Delegates, and, most important of all, Colorado gave a comparatively small A. M. A. meeting a better attendance proportionate to our membership than did any except Louisiana and the immediately adjacent states.

In view of the fact that at least five other western and Rocky Mountain states were not represented at the convention, even by a delegate, Colorado's record of registering thirty-seven Fellows at the meeting stands out particularly.

Despite the recognized fact that 1931 and the first part of 1932 have been among the worst years financially that the medical profession has experienced, not only did Colorado show this record attendance, but our Society succeeded for the first time in its history (unless old members have misinformed the writer) in arranging a special Pullman to and from New Orleans. If this can be done in a bad economic year, it can and should be done every year in the future. Next year particularly, with the 1933 A. M. A. meeting scheduled for Milwaukee, Wis., we should arrange one or more such special cars and should have a fine attendance. Next year there will be the added incentive created by the Century of Progress Exposition or World's Fair in Chicago, two hours distant from Milwaukee.

There will be no need to expound the advantages and extra pleasures afforded by a private Pullman to and from the meeting after those who availed themselves of the opportunity this year have spread the story of the trip among their friends. The railroads—Missouri Pacific and Illinois Central—went far out of their way to provide the party with every extra comfort that could be asked, special table d'hote meals on the dining cars at low cost, the side-tracking of the car in St. Louis en route homeward that we might not have to get up in the morning until we wished, being two examples. When two of the party inadvertently stayed too long in the Kansas City terminal and saw our train pull out without them, our conductor soon discovered their absence and some twenty-five miles out of Kansas City the train was side-tracked until another train on which railroad officials had bundled our missing couple could catch us and the party be reunited with appropriate hilarity. Although those making the trip to New Orleans in the special car originally had planned varied dates for the return, they had such a fine time together that all gladly altered personal plans to unite the group again for the return.

New Orleans entertained her visitors with all the hospitality that one could expect of the "Deep South," flavored with a French atmosphere, delightful seaport foods a la Creole, and with reasonable prices throughout, all in a sub-tropical setting. The weather was clear all during the session, and not uncomfortably hot.

Officers of the A. M. A. were somewhat disappointed at the rather small total registration compared with recent years, but this was to be expected in view of the three factors: the distance from the large population centers, the bad year financially, and the very recent date of the annual meeting of the Southern Medical Association. A large meeting is not necessarily the best meeting. If there were a few complaints against the small registration, they were the only complaints heard and those who for one reason or another failed to attend were the losers.

Coloradans were enthusiastic over the scientific and technical exhibitions, up to standard in every way. Section meetings this writer feels incompetent to discuss. Others will discuss them intelligently later. The House of Delegates functioned with its usual precision and made a number of vitally important decisions which will be taken up later both in Colorado Medicine and before our own House of Delegates at Estes Park.

Colorado is entitled by the size of its membership to two members of the A. M. A. House of Delegates, our representatives this year being Drs. J. W. Amesse of Denver and Crum Epler of Pueblo. But coincidence this year seated five Coloradans in the national House. Each section of the A. M. A. Scientific Assembly is entitled to one delegate. The delegates from the sections on Neurology, Ophthalmology, and Radiology were unable to attend and their alternates, Drs. Edward Delehanty, W. H. Crisp, and W. W. Wasson, respectively, all of Denver, were seated.

However, Colorado had no candidate for high office, no "ax to grind" before this particular A. M. A. session at the time when the state was so represented as to be in an excellent position to wield a strong influence. Our officers and mem-

bers might well give thought to this. Colorado should continue to be represented on the high councils of the A. M. A., as it was until recently on the Judicial Council by Dr. J. N. Hall of Denver and on the Council on Scientific Assembly by the late Dr. L. H. McKinnie of Colorado Springs. Our Society includes many men capable of serving with distinction in the management of our national organization.

It is impossible in a short statement to touch more than a few highlights of the Colorado activities at the meeting. Much of value was brought back by all who attended, and Colorado contributed its share to the good that others took back to their homes in other states. Then, as indicated before, all had an exceptionally fine trip, with just enough entertainment, sightseeing, and rest to remove any thought of all work and no play.

Fellows of the American Medical Association who registered from Colorado were the following: John W. Amesse, Winthrop E. Blanchard, Clough Burnett, Thomas E. Carmody, H. J. Corper, William H. Crisp, C. H. Darrow, Edward Delehanty, E. I. Dobos, Franklin G. Ebaugh, William C. Finnoff, Roy P. Forbes, Philip Hillkowitz, Edward Jackson, George S. Johnson, W. Wiley Jones, May B. Kruse, Ray R. Lowther, A. J. Markley, Albert W. Metcalf, Frank B. Stephenson, Atha Thomas, Virginia Van Meter, W. W. Wasson, R. W. Whitehead, Sanford Withers, Hubert Work, all from Denver; Thomas J. Evans, Alexius M. Forster, William P. McCrossin, Frank T. Stevens, from Colorado Springs; Franklin C. Cassidy and Benjamin Jackson from Fort Lyon; J. H. Daniel from Sterling; Walter K. Hotchkiss, Brighton; Walter K. Reed, Boulder; Crum Epler, Pueblo. If other Fellows attended, their registration was not recorded. In addition, several of the doctors were accompanied by their wives or other members of their families. Mr. Harvey T. Sethman, Executive Secretary, accompanied the group on the special Pullman, which was headed by President Delehanty.

Colorado men on the programs of the sections included Drs. H. J. Corper, who read a paper on "Tissue Substrate Micro-culture for Tubercle Bacilli," F. G. Ebaugh on "The Crisis in Psychiatric Education," W. C. Finnoff on "A Syndrome in Uveal Tuberculosis," A. M. Forster on "Nontuberculous Respiratory Diseases," Edward Jackson on "Aberrations of Eye and Lenses," George S. Johnson on "Forensic Psychiatry" and W. W. Wasson on "The Change Taking Place in the Nasal Accessory Sinuses After Birth." Drs. Carmody, Crisp, Delehanty and Whitehead opened discussions on papers in their sections, and several others took part in open discussions.

As most of our members have probably already learned through the newspapers, Dr. Dean Lewis, professor of surgery at Johns Hopkins University School of Medicine and Surgeon in Chief at Johns Hopkins Hospital, Baltimore, was chosen President-elect of the American Medical Association. Dr. Rudolph Matas of New Orleans was elected vice president. Secretary Olin West of Chicago, Treasurer Austin A. Hayden of Chicago, Speaker Frederick C. Warnshuis of Grand Rapids and Vice Speaker A. E. Bulson of Fort Wayne were re-elected. Arthur W. Booth of Elmira, N. Y., and Rock Sleyster of Wauwatosa, Wis., were elected to the Board of Trustees for five-year terms. E. P. Sloan of Bloomington, Ill., was elected to the Judicial Council, Ray Lyman Wilbur of Washington, D. C. and F. A. Washburn of Boston to the Council on Medical Education and Hospitals, and Frank H. Lahey of Boston and Irvin Abell of Louisville, Ky., to the Council on Scientific Assembly.

MEETING OF WESTERN BRANCH, AMERICAN PUBLIC HEALTH ASSOCIATION JUNE 9-11, 1932 DENVER

TENTATIVE PROGRAM

Thursday, June 9

Public Health Administration

Presiding: Dr. Platt W. Covington, Salt Lake City.
Consolidation of All Health Services,
Dr. Herbert F. True, Health Officer, Sacramento.
Correlation of Voluntary and Official Health Work,
Dr. E. L. Bishop, State Health Officer, Nashville.
Social Trends in Medicine and Dentistry,
Dr. Michael Davis, Julius Rosenwald Fund, Chicago.
The Denver Child Research Council,
Dr. Alfred Washburn, Denver.
Local Health Councils,
Dr. F. E. Harrington, Minneapolis.

General Evening Session

Presiding: Dr. E. T. Hanley.
1. Adult Health Education,
Dr. Walter H. Brown, Stanford University.
2. Recent Federal Health Legislation,
Dr. Taliaferro Clark, Washington, D. C.
3. The Denver Infant and Maternal Mortality Study,
Dr. A. D. H. Kaplan, University of Denver.

Friday Morning, June 10

Bacteriology and Immunology

Presiding: Dr. C. W. Sult, State Health Officer, Phoenix.
Outbreaks of Botulism in Rocky Mountain States,
Dr. Ivan C. Hall, Denver.
Diphtheria Immunization,
Dr. Anne E. Rude, Director, Bureau of Maternal and Child Hygiene, Los Angeles County.
Vincent's Infection.
Typhoid Immunization of Farm Workers,
Dr. John J. Sippy, Health Officer, Stockton.
Relapsing Fever,
Dr. R. R. Spencer, Surgeon, U. S. P. H. S., Washington, D. C.

Water, Food, Milk and Sanitation

Presiding: Dr. Leon B. Reynolds, Stanford University.

Potability of Farm Water Supplies,
George W. Stiles.

Mottled Enamel, A Western Water Problem.

Newer Aspects of Sanitary Engineering,
Prof. Charles Gilman Hyde, University of California.

Shellfish Control,
C. G. Gillespie, Director, State Board of Health, California.

Health Values of a State Dairy Council,
Sam H. Greene, Secretary, California Dairy Council.

Friday Afternoon, June 10

Inspection Trips to Points of Public Health Interest—arranged by Dr. Beaghler and Dr. Jaffa.

Friday Evening, June 10

General Meeting Open to the Public. Presentation of National Health Authorities.

Addresses:
Dr. Louis I. Dublin, President, American Public Health Association; Dr. John A. Ferrell, President-Elect; Dr. E. L. Bishop, Chairman, Executive Committee; Dr. Kendall Emerson, Acting Executive Secretary; Dr. L. L. Lumsden, Medical Director, U. S. P. H. S., New Orleans.

Saturday Morning, June 11

Public Health Nursing and Health Education

Presiding: Miss Alice C. Bagley, Assistant Superintendent of Nursing, Metropolitan Life Insurance Company, San Francisco.

Qualifications for Public Health Nurses,
Miss Ann Dickie Boyd, Supervisor of Nurses, Denver Public Schools.

Public Health Nursing from the Health Officer's Standpoint,
Dr. B. B. Jaffa, Health Officer, Denver.

Public Health Nursing Education,
Miss Elnora Thomson, Director of Nursing Education, University of Oregon.

Teaching Hygiene to Teachers,
Prof. Clair V. Langton, Director, Division of Hygiene, Oregon Agricultural College.

The A. B. C.'s of Vital Statistics,
Dr. J. Rosslyn Earp, State Health Officer, Santa Fe.

Western Public Health Problems

Presiding: Dr. E. E. Hamer, State Health Officer, Carson City.

A State Mental Hygiene Program,
Dr. Murphy Bradford, Colorado Springs.

Psittacosis,
Dr. K. F. Meyer, Director, Hooper Foundation, San Francisco.

Coccidioidal Granuloma,
Dr. E. C. Dickson, Department of Public Health and Preventive Medicine, Stanford University.

Trichinosis,
Dr. J. C. Geiger, Health Officer, San Francisco.

Silicosis,
Dr. Robert Legge, University Physician, University of California.

Saturday Afternoon, June 11

Controversial Questions

Presiding: Dr. E. L. Bishop.

The Value of Regional Branches of the American Public Health Association,
Dr. Fred T. Foard, Acting Assistant Surgeon, United States Public Health Service, Santa Barbara.

AMERICAN UROLOGICAL ASSOCIATION

The eighth annual meeting of the Western Branch Society of the American Urological Association will be held at Portland, Oregon, July 1 and 2.

Friday, July 1, there will be a dry clinic in the morning. Luncheon at the Heathman, the official hotel. Afternoon, papers. Evening, banquet and entertainment at the University Club.

Saturday, July 2, papers in the morning; luncheon, including the ladies. Afternoon, motor trip Columbia River Highway. Evening, barbecue, including the ladies. Fishing and horseback trips will also be provided. All members of the Society will be invited to attend.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Medical society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

* * *

BOULDER COUNTY

The regular monthly meeting of the Boulder County Medical Society was held at the Elks Club in Longmont, Thursday, May 12. The program was preceded by a dinner. Four case reports were presented; "Hematuria," by Dr. V. J. Jernigan; "Heart Disease," Dr. W. J. White; "Streptococcic Pneumonia," Dr. O. J. Rockwell, and "A Case for Diagnosis," by Dr. John Andrew.

M. L. JOHNSON,
Secretary.

* * *

CROWLEY COUNTY

The regular meeting of the Crowley County Medical Society was held April 12 at Ordway. Dr. Edward Delehanty, president of the State Society, and Mr. Harvey T. Sethman, Executive Secretary, attended the meeting. A symposium on "Vaccine Therapy" was given by Dr. William M. Desmond and Dr. J. A. Hipp.

The Crowley County Medical Society held its regular meeting Tuesday, May 10, at Ordway in the office of Dr. J. E. Jeffery. Dr. E. O. McCleary gave an interesting talk on "Puerperal Eclampsia," and Dr. W. M. Desmond reported a case of "Carcinoma of the Tongue." Some clinical demonstrations were presented with quiz-box questions.

J. A. HIPP,
Secretary.

* * *

DELTA COUNTY

Dr. W. S. Cleland read a paper on Medical Economics before the regular meeting of the Delta County Medical Society held Friday, April 29.

LEE BAST,
Secretary.

* * *

LAS ANIMAS COUNTY

Dr. W. L. Newburn was the principal speaker at the regular meeting of the Las Animas County Medical Society, held May 6 at the Mt. San Rafael Hospital. Doctor Newburn read a paper on

"Cholecystitis and Cholelithiasis," and reported a case of empyema of the gall bladder. Mr. Charles H. Haines of Denver, attorney for the Board of Medical Examiners, also met with the members and discussed local conditions in the practice of medicine.

C. O. McCLURE,
Secretary.

* * *

NORTHEAST COLORADO

Dr. J. E. Naugle was the principal speaker at the regular meeting of the Northeast Colorado Medical Society, held in Sterling, April 14. Dr. Naugle spoke on "The Bohler Treatment of Fractures."

There were thirteen members present at the regular meeting of the Northeast Colorado Medical Society, held May 12 at the home of Dr. J. W. Kinzie in Haxtun. The meeting was preceded by a turkey dinner. Doctors John S. Chase and Arnold Minnig of Denver were guest speakers Doctor Chase delivered a paper on "Diagnosis and Treatment of Squint." Doctor Minnig talked on "Non-Surgical Treatment of Goiter." Both papers were illustrated with lantern slides.

E. P. HUMMEL,
Secretary.

OTERO COUNTY

The regular meeting of the Otero County Medical Society was held April 14 at the Harvey House, La Junta. Dr. George E. Rice of Pueblo gave an interesting paper on "Spinal Anesthesia."

C. E. MORSE,
Secretary.

* * *

PUEBLO COUNTY

The first May meeting of the Pueblo County Medical Society was a dinner meeting held at the Hotel Congress, May 17. Drs. C. E. Earnest and H. S. Rusk presented papers on "Sinus Disease." The papers were illustrated with radiographs.

L. L. WARD,
Secretary.

* * *

WELD COUNTY

The regular meeting of the Weld County Medical Society was held May 2 at the Greeley Hospital. Dr. Ella Mead read a report of the "Birth Control Clinic."

TRACY D. PEPPERS,
Secretary.

Dr. Merrit B. Hook

Dr. Merrit B. Hook was born at Wappelo, Iowa, April 20, 1880. After being graduated from Rush Medical College in 1900 he took his interneship at the Cook County Hospital in Chicago. He practiced in Chicago for a time with his brother, Dr. E. I. Hook, and then came to Denver because of ill health. In 1905 he was married to Miss Marceline H. DaMay. In the same year Dr. Hook moved to Kremmling, where he did general practice and was the county physician. About 1923 he moved to Big Piney, Wyo., where he ran a drug store in addition to doing general practice. In 1924 he took postgraduate work on the eye, ear, nose, and throat at Rush Medical College. In 1929 Dr. Hook returned to Denver and confined his practice to Ophthalmology.

At the time of his untimely death, April 12, 1932, Dr. Hook was the refractionist for the Outpatient Department of the University of Colorado School of Medicine, was assistant Visiting Ophthalmologist in the Colorado General Hospital, was a guest member of the Colorado Ophthalmological Society, and was a member of the Medical Society of the City and County of Denver.

His remains were shipped to Wappelo, Iowa. The sympathy of his many friends and colleagues is extended to his widow, who resides in Denver.

R. W. D.

WOMAN'S AUXILIARY

The State Chairman of Press and Publicity wishes to take this means of thanking the different county auxiliaries for their cooperation during the year in contributing items of interest for these columns. The plan has been to have an item each month from one of the county auxiliaries and also from the chairman of one of the standing committees besides any articles of interest to the members.

Of the seven county auxiliaries, articles appeared from Denver, Larimer, Mesa, Otero, San Juan, and Weld counties. Larimer was especially cooperative and sent several splendid accounts of their activities. Since this county is one of the two who have a special press and publicity chairman (Denver being the other one), it may indicate the advisability of each county appointing one. Mrs. P. J. McHugh, publicity chairman of Larimer, took an active interest and sent several delightful articles. It is unfortunate that the only county not heard from was one of our largest, Pueblo. We regretted exceedingly that El Paso County Auxiliary, located at Colorado Springs, disbanded during the year.

We hope that next year every county auxiliary will cooperate to the fullest of their ability, and that in consequence each one will have news printed in these columns throughout the year.

Mrs. Douglas W. Macomber,
State Chairman of Press and Publicity.

(Continued on Page 30, Adv. Section)

WYOMING SECTION

President, R. H. Sanders, Rock Springs — Vice President, Herbert L. Harvey, Casper
President-elect, Frederick L. Beck, Cheyenne
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to the A. M. A.: George P. Johnston, Cheyenne — Alternate, Earl Whedon, Sheridan
Councillors: C. Y. Beard, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shaffer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan — Emory L. Jewell, Shoshoni — C. W. Jeffrey, Rawlins

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Republican and Democratic State Conventions

MONDAY and Tuesday, May 9 and 10, were busy days in Casper. Both political parties held large conventions and hotel accommodations were at a premium.

It is not the function of a Medical Journal to report all the doings of these conventions, but we do point with pride (that used to be a grand and glorious saying in past times) to the fact that several of the doctors of Wyoming attended and took part in these conventions. It is hopeful to witness the interest the medical profession is taking this year in trying to select men and adopt principles whose aims shall be for better medical care for the people of Wyoming.

The time is here when all true "medicine men" must do their utmost to see to it that the quack's voice shall not be the ruling one and the one to whom our state officers shall give their attention. This year party lines will not hold the doctors of Wyoming, but they will vote and work for the man and disregard party ties if a better man is the nominee of the other party.

That several of the outstanding medical men will run for the next legislature is most heartily approved. They should receive the united support of the medical profession so that the next Senate Committee on Medical Affairs shall not have as its chairman a chiropractor (as was the case in the last legislature), using his position to obtain special consideration from our Board of Medical Examiners.

Such "tommy-rot" ought to be cut out and we believe it will this year.

The Wyoming White House Conference

ON MAY 5, 6, and 7, the White House Conference was held at Casper. The medical program was printed as follows:

THURSDAY AFTERNOON, MAY 5, 1:30 P. M.

Presiding Chairman, Dr. W. H. Hassed, State Health Officer

Address of Welcome ..... Mayor E. W. Rowell
Greetings ..... Governor A. M. Clark
Legislation ..... Senator Patrick Sullivan
The Children's Charter ..... Dr. J. C. Kamp, Casper
Health Education, (Literature, Lectures, Demonstrations) ..... Dr. H. L. Harvey, Casper
Maternal and Infant Mortality ..... Dr. A. B. Tonkin, Riverton
Infant and Child Care and Feeding ..... Dr. N. C. Geis, Casper
Physical Examination ..... Dr. O. S. Pavy, Laramie
Growth and Development ..... Dr. Allen McClellan, Casper
Communicable Disease Control ..... Dr. F. G. Huffman, Wheatland
Preventative Medicine and Immunization ..... Dr. J. H. Goodnough, Rock Springs
Sanitation ..... Dr. W. O. McDermott, Casper
Medical Service and Administration ..... Dr. N. E. Wells Newcastle
Tuberculosis of Spine in Children ..... Dr. J. R. Hylton, Douglas

FRIDAY, MAY 6

Mental Health of Children in Wyoming ..... Dr. T. J. Reach, Casper
Eugenic Sterilization ..... Mr. G. M. Wilson, Lander

Ye Editor could not attend and so far has not been able to get any first-hand information from a medical source just how much of the program was presented as outlined.

Invitations to print the papers in our part of Colorado Medicine have been extended to the major portion of this program and we hope to present these papers for the consideration of the medical men of Colorado and Wyoming.

When it comes to the vital questions of public health the doctors are the ones most interested, and if the authors will kindly send us the papers read we shall take pleasure in publishing the same. The balance of the program is omitted for lack of space, not for lack of interest.

Rocky Mountain Fever Vaccine

The Colorado State Board of Health announces that it is being supplied with the prophylactic Rocky Mountain Spotted Fever Vaccine by the government laboratories in Montana. Any Colorado physician needing the vaccine to immunize persons contemplating mountain trips into dangerous districts should communicate with Dr. S. R. McKelvey, Secretary, State Office Building, Denver, giving him the number of persons to be immunized. There is no charge for the vaccine.

"This year 25,000 young women for whom there is no work will be graduated from the nurses' training schools," Dr. Burgess, director of the committee on the grading of nursing schools, has declared. "Next year there will be another 25,000, and the year after that still another. In the ten years from 1920 to 1930, the population of the entire United States has increased 16 per cent, but the number of graduate nurses has increased 97 per cent. The United States census gives a total for 1930 of 294,268 trained nurses."

The following thought-provoking sentences are from an address by Dean Langley Porter of the California University Medical School: " 'The high cost of medical care' is an unfortunate expression. You would be surprised to know how much free work doctors do. We do not hear of any campaign against the high cost of tobacco, yet the people of this country spend as much and more for cigars and cigarettes every year than it takes to sustain all our hospitals. Nor do we hear any outcry against the high cost of beauty parlors, yet more than $2.00 go for cosmetics to every dollar spent for health."

COLORADO NEWS NOTES

COLORADO SPRINGS—Dr. Jack Sevier of Colorado Springs attended the annual meeting of the State Medical Society of Texas at Waco early in May.

COLORADO SPRINGS—Dr. McCorkle and Dr. Webb of Colorado Springs attended the annual meeting of the American College of Physicians held at San Francisco the second week of April.

COLORADO SPRINGS—Dr. L. W. Bortree attended the annual meeting of the American Clinical and Pathological Society held in Atlantic City early in May.

DELTA—Dr. A. C. McClanahan of Delta has accepted the position as physician for the Libby-McNeil-Libby Canning Company in Alaska, and he set sail from Seattle April 14 for Kenai, Alaska.

DENVER—Dr. A. J. Markley of Denver was a visitor to Cuba during the first week of May as a delegate to the Association of American Dermatologists.

DENVER—The Executive Secretary and Dr. G. P. Lingenfelter were guests of the New Mexico State Medical Society at Santa Fe, May 19 to 21.

DENVER—The following physicians from Denver attended the annual meeting of the American College of Physicians held at San Francisco the second week of April: Dr. Arneill, Dr. Ashley, Dr. Burnett, Dr. Paul Connor, Dr. Hall, Dr. Holden, Dr. Kemper, Dr. Withers, Dr. Philip Work, and Dr. Yegge.

DENVER—Dr. Leonard Freeman and Dr. Casper Hegner of Denver were present at the meeting of the American Surgical Association at New Haven, Connecticut, May 9 to 12.

DENVER—Dr. T. E. Carmody of Denver proceeded to Atlantic City following the convention of the American Medical Association at New Orleans to participate in the deliberations of the American Laryngological Society.

DENVER—Dr. and Mrs. C. H. Darrow of Denver enjoyed a brief vacation at Biloxi, Mississippi, prior to the American Medical Association Convention.

DENVER—Dr. and Mrs. Frank B. Stephenson have returned to Denver after a vacation spent in Mexico City. On the return trip, Dr. Stephenson attended the meeting of the American Medical Association in New Orleans.

DENVER—Dr. J. N. Hall of Denver was nominated to receive a fellowship from the American Therapeutic Society.

FORT COLLINS—Dr. C. H. Platz of Fort Collins, who has been confined to his bed for the past two months with a fractured patella, has entirely recovered.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V June, 1932 No. 6

NOTHING has done more to formulate orderly conceptions out of the confusion of phthisis than Koch's discovery of the tubercle bacillus. To Laennec we owe our classified knowledge of the diverse pathological forms tuberculosis may take; to Virchow we pay tribute for his logical, mechanistic interpretation of tissue changes in disease; to numerous other workers we are indebted for valuable contributions to knowledge. But Koch gave us the Rosetta stone—the key which enables us to translate the life story of the White Plague. That was fifty years ago. Since that time ardent students have been laboring to decipher the details. We are confidently expecting the conquest of the old enemy. Koch's contribution, however, was more than the discovery of a germ. He also put precision into the new and still haphazard science of bacteriology. He invented apparatus, adapted methods of others, and established principles, which made of microbe hunting the exact science of bacteriology. To what qualities of this unpretentious doctor may we credit that achievement? Allen K. Krause, in his foreword to Pinner's recent translation of Koch's original announcement, attributes it to the homely quality of patience—patience exalted to genius.

THE GENIUS OF KOCH

Early in 1876 Koch was lured away from a country practice in the village of Wollstein to the University of Breslau, there to disclose the life history of the anthrax bacillus and to open up the study of bacteria, work with which, by Pasteur, was stirring the medical world. Five years later Koch found himself directing a new science at the Imperial Health Bureau in Berlin, fully equipped for research. Soon after the cause and nature of anthrax had been discovered, came the identification of the gonococcus, pneumonococcus and the typhoid bacillus. Smear-preparations, staining and plate-isolation methods had been devised. Ehrlich was experimenting with aniline dyes, and Koch had taken these over into bacteriology.

Koch began the search for the cause of tuberculosis in 1881. He stained known tuberculous tissue with methylene-blue and saw—nothing; at least no germs. But he "fortified" the stain with potash and then he saw within the background of tissue, certain fine blue streaks that he felt sure were "germs". That was the first step; counterstaining with Bismarck-brown was a mere detail to be worked out later.

The next step demanded the separation from the morbid tissue of the extrinsic blue streaks; that is, the isolation of the germ. Here he struck another snag. Cultivation on a solid medium was necessary. Gelatine, the good old stand-by for ordinary germs would not work. But Koch was an adapter, never hesitating to use methods of other men. Tyndall, a British physicist, interested in the age-long controversy of spontaneous generation, had exposed surfaces of coagulated serum to high altitudes in the Alps in order to catch the minutest particles of living matter. There can be no doubt that when the gelatine medium failed him, Koch lost no time in "borrowing" Tyndall's medium. Again he met with success. Inoculated surfaces displayed minute points of roughening. With a platinum needle, he transferred a bit of the matter to a slide, made a smear, stained it and then saw the gracile blue rod-like forms, which he had so often before seen in tuberculous products. The continuance of the original pure culture by repeated transferrence to fresh media was easily accomplished and carried out far enough to satisfy the most severe critic.

But would these artificially cultured germs actually produce tuberculosis in animal tissues? To prove that was the third step. In his paper he described accurately and without unnecessary detail the procedures and results which proved the virulence and specific effect of those first tubercle bacilli. He cited his experiments on animals with such surety that no skeptic could further doubt. And finally he succeeded in finding again the identical tubercle bacilli in the artificially produced tubercles. The chain of evidence was complete.

Koch's Proof Impregnable

Koch presented his first announcement before the Berlin Physiological Society on March 24, 1882. Why a physiological, rather than, say, a pathological society or an organization for infectious diseases or internal medicine?

"The reason is known," says Krause. "It sprang from Virchow's attitude on phthisis and its nature. The dean of cellular pathology, and indeed of world medicine, was then in no mood to listen to proof that consumption, tuberculosis, scrofulosis, *Perlsucht,* were the product of essentially one and the same specific agent;—much less was he ready to lend a hand toward encouraging heresy aimed at dogma that, more than anyone on earth, he himself had formulated and imposed upon medical thought. For thirty years and more he had ingrained the latter with the duality of phthisis and the nonspecificity of consumption and tuberculosis, which must, according to him, be regarded as two separate, though commonly associated, morbid processes."

Koch spoke his piece under odd auspices. Every hearer speculated on what Virchow would say. But in Koch's impregnable argument he could find no flaw. The Chairman called for discussion. There was none. So spellbound was the audience that they even failed to applaud. For the first time in the history of the Society no one arose to offer at least a prefunctory comment.

The discovery of the tubercle bacillus marked the pinnacle of Koch's career. By adopting and adapting methods he had put into everyone's hands a method of simplicity and accuracy applicable to the search for the causes of infectious disease to no end. "Within a few years Koch had snatched the vast hidden world of bacteriology from the 'Chaos' to which hopeless Professor Cohn had once consigned them."

Scientific workers have marvelled at the enormous task Koch performed in so short a time. It was necessary for him to spend time in trial of his older standard methods before discarding them. Moreover, as we now know, the tubercle bacillus is one of the slowest-growing of bacteria. With an experience of years behind him Koch had never come across a germ that would not become visible to the naked eye within two or three days after the implantation of the material within the culture tube. At the end of the first week his inoculated tubes remained unchanged. Twenty days passed before there was the least sign of growth.

In its staining qualities, too, the tubercle bacillus is different from other bacilli known to Koch. He did not give up when the ordinary methods employed at that time failed but so modified the dye that it did penetrate the bacillus he was hunting for.

Was Koch a genius? Like Edison he was a persistent experimenter. An active imagination suggested the objective and by repeated trial and error he found the way. He never hesitated to use and adapt the methods of others. He was ingenious in inventing methods of his own. But primarily his was the genius of patient waiting. Though past experience gave him no justification for waiting, he persisted in his heart-breaking vigil and in waiting, won out.

The Aetiology of Tuberculosis—Doctor Robert Koch—Translation by B. and M. Pinner—*Amer. Rev. of Tuberc.—March, 1932.*

KOCH'S ORIGINAL PAPER TRANSLATED

Koch's original paper *Die Aetiologie der Tuberkulose* was published in German a few weeks after the historic meeting of the Physiological Society. The better-known paper under the same title did not appear until 1884 and this was a greatly expanded dissertation on the tubercle bacillus. The fiftieth anniversary of the discovery of the bacillus prompted Dr. and Mrs. Max Pinner to make an English translation of the original essay. This was published in the March, 1932, American Review of Tuberculosis, and, together with illustrations and a foreword by Allen K. Krause (from which the above abstracts have been derived) was reprinted in attractive booklet form. This booklet may be obtained through tuberculosis associations.

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources — We Insure Only Ethical Practitioners

David Jacobs, Manager — *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. — Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.
BALTIMORE, MARYLAND

W. T. ROCHE
Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 — YOrk 0901

18th at Gilpin

INTRODUCTORY OFFER TO DOCTORS

250 Letterheads, 8½"x11"
250 Envelopes, 6¾ Size
250 Statements, 6¼x6¾
} $5.00

All neatly printed in black ink on 20-lb. Hammermill Bond. Samples on request. This special price can be made only when check accompanies order.

THE MILES & DRYER PRINTING COMPANY
1936-38 Lawrence St. — DENVER — Telephone KEystone 6348

Announcing

Surgeons' Operating Garments — Nurses' Uniforms

THE TUXALL CORP.

exclusive

New Styles in Professional Garments — Hospital Work Uniforms

Denver made goods for Rocky Mountain Patrons

3704 Downing St. — TAbor 9093 — Denver, Colo.

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. B. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D., Univ. of Colo School of Medicine and Hospitals, Denver

Coming Meetings:

Mid West Hospital Association Annual Meeting—St. Louis, Missouri, June 2-3.

Western Hospital Association Annual Meeting—Salt Lake City, Utah, June 9-11.

Catholic Hospital Association Annual Meeting—Villanova, Pennsylvania, June 21-24.

American Hospital Association Annual Meeting—Detroit, Michigan, September 12-16.

American College of Surgeons Annual Meeting—St. Louis, Missouri, October 17-21.

Colorado Hospital Association Annual Meeting—Colorado Springs, Colorado, November 8-9.

* * *

THE ASSOCIATION'S ANNUAL MEETING

THE PROGRAM committee and officers of the Colorado Hospital Association have thought it wise to postpone the meeting of the Association which was scheduled for June until a date sometime later in the summer. Meetings of the American Sanitarium Association, the Western Branch of the American Public Health Association, the National Tuberculosis Association, the Mid-West Hospital Association, and the Western Hospital Association all occur during the month of June, either in Denver or within a radius of a few hundred miles. It would be impossible for us to attend these meetings if we attempted to hold one of our own at the same time. It was, therefore, thought best to hold our meeting at a later date. It is hoped that every member of the Colorado Association will attend as many of the above meetings as possible.

It has been suggested that this postponed meeting be made a trustees' meeting, one to which hospital superintendents might bring their trustees. A special program could be arranged covering problems of interest to hospital trustees and emphasizing the responsibility of the trustees to their hospitals. Will you please notify your Executive Secretary as to whether or not this plan appeals to you as a member of the association, so that he in turn may inform the program committee regarding the consensus of opinion in the matter.

NURSES' UNEMPLOYMENT

AT A RECENT meeting of a group of doctors, nurses, and hospital superintendents, the purpose of which was to consider the nurses' unemployment, a great deal was said about whether or not the hospitals should concern themselves with the employment of their graduates after they have finished training. It was pointed out that universities and other educational institutions do not feel any responsibility for the employment of their graduates, and that the universities do not concern themselves as to whether they are producing an over-supply of college graduates.

Much has been said on both sides of this subject by those interested in the situation, and the editor invites you to make any comments you may have, either pro or con, regarding it. Please mail your contribution to "Colorado Medicine" or to either the Executive Secretary or President of the Colorado Hospital Association, who will see that it is published. It is hoped that we may have some interesting and profitable discussion of the problem.

WHAT PLACE HAS RESEARCH IN THE HOSPITAL?

ALFRED H. WASHBURN, M.D.*
DENVER

Before attempting an evaluation of research in the hospital it may be well to ask ourselves two questions. What is research?

*From the Child Research Council, University of Colorado School of Medicine and Hospitals.

(Continued on Page Eighteen)

WORLD'S LARGEST AND OLDEST MAKERS OF SPECIALLY DESIGNED SURGICAL SUPPORTS

-BARCLEY-

Designing service offers doctors a complete line of surgical supports for every need and purpose, designed and made to the exact measurements and individual requirements of each and every patient—men, women and children. Factory, Newark, N. J.

Denver Office: 210-211 Barth Bldg. Phone MA. 0564
FRANCES VILES, Supervising Corsetiere Res. Phone, FR. 2092

Service rendered in patient's home, hospital or doctor's office, any time, day or night. Just phone and we will meet your convenience.

Our friends of the nursing profession will appreciate our stock garments, SMART-FORM, "true to its name." A smart and distinctive combination, girdle, brassiere and support.

AIR TRANSPORTATION

Safety — Comfort — Speed

Waco and Stinson Aircraft

READY TO GO—WHEN YOU ARE



WESTERN FLYING SERVICE

Municipal Airport, Denver. Ph. York 8273



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721



EBEN-EZER HOSPITAL

BRUSH, COLORADO

A fully-equipped modern hospital inviting members of the Colorado State Medical Society to use its facilities.

Ten acres of landscaped grounds

A Member of the American Lutheran Conference





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course

Woodcroft Hospital

PUEBLO, COLORADO

WOODCROFT HOSPITAL was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent

H. A. LaMOURE, M.D., Medical Director **F. M. HELLER, M.D., Neurologist and Internist**

P. A. DRAPER, M.D., Resident Physician



NATIONAL METHODIST EPISCOPAL SANATORIUM

THE NEW NATIONAL METHODIST EPISCOPAL SANATORIUM, for the exclusive treatment of Tuberculosis, has already been recognized as one of the finest Tubercular Sanatoriums in America. Colorado's invigorating air and sunshine, flooding every room through specially designed windows, diet and careful nursing, are important factors in the treatment of our patients.

For Rates and Reservations Write or Wire

GUY M. HANNER, SUPERINTENDENT COLORADO SPRINGS

The Presbyterian Hospital

MODERN fireproof building—Telephone, hot and cold artesian water, lavatory in every room—Light, airy rooms—Reasonable rates—every facility for scientific diagnosis and therapy—Fully equipped pathological and x-ray laboratories and dietetic department.

East 19th Ave. and Gilpin St., Denver, Colorado

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING

Under New Management

PHYSICIANS AND SURGEONS HOSPITAL

Medical
Surgical
Obstetrical

2939 E. COLFAX YOrk 1424

Bessie A. Keener, Supt.

Harold Crawford Hill
Medical Director

Holyoke Hospital

Holyoke, Colo.

Jas. H. McKnight M.D. Portia M. Lubchence M.D.

McKnight Hospital

Haxtun, Colo.

DOCTOR:---

Are you remembering your Library, your State Society, and Denver Society Library, in your future bequests?

If so, assist the Trustees by using the proper legal form for such bequests, which some day will give the Society a suitable Library Building of its own.

(Form of Bequest to the Permanent Library Fund)

"Unto the Colorado National Bank of Denver, as Trustee, the sum of .....dollars ($.....), to be used by said bank as Trustee of the Medical Society Building Trust as established and defined by that certain Trust Agreement between the Medical Society of the City and County of Denver and the Colorado National Bank of Denver, dated July 30, 1927, and now on file in Trust No. 2053 of the Trust Department of said bank."

A bequest to the Library is a bequest to the advancement of medicine.

COMMITTEE ON LIBRARY AND MEDICAL LITERATURE.

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

MERCUROCHROME
220 SOLUBLE
in
OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

WHAT PLACE HAS RESEARCH IN THE HOSPITAL?

(Continued from Page Ten)

And what are the functions of a modern hospital? If we hold a common conception of this term research, at the same time being in agreement about the essential functions of a hospital, then we may be able to estimate fairly the value of research in its possible relationship to our institutions for the sick.

Research may be defined as a "prolonged and painstaking search after certain facts or principles," a "search and search again" in the effort to discover cause and effects of various observed facts. If we apply such a definition of research in the field of medicine we must limit the search to such facts or principles as are concerned either with keeping human beings well or with the relief of their sickness and suffering. Stating the purpose of medical research in a somewhat broader way we may fairly say that it is to increase the health and happiness of this and future generations both in our own community and wherever people live. Whenever medical research loses sight of this fundamental purpose it ceases to justify its existence in the field of medicine.

Whether or not you have accepted this defining of research I am sure you will agree when I say that the chief and foremost function of any good hospital is the treatment of the sick entrusted to its care. This is, in fact, its "raison d'etre"—its very excuse for existence. Its next most important function seems to me to be the adequate training of young physicians. This is a function which is frequently neglected, the interns, residents or younger men on the visiting staff being all too often considered by the hospital authorities as "cheap help" for the running of the institution. We must not forget that, in a few years, the health of our community will be in the hands of this present crop of young physicians. Therefore our hospitals should consider it both an opportunity and a responsibility to see to it that these young men and women are

THE GOLDEN PLUNGE

OPEN ALL THE YEAR AROUND

The Clean and Sanitary Swimming Pool

For Ladies and Gentlemen

Proper Temperatures Maintained for Any Weather

Thirty Minutes from Denver on Fine Highways

Grant Churches, Manager Phone Golden 266

TAYLOR-MADE
Kenlastic
REG. U.S. PAT OFF
CORSETS

ARE MADE TO SUIT EVERY NEED FROM
THE LIGHTEST WEIGHT GIRDLE TO
THE HEAVIER SURGICAL CORSET

ABDOMINAL BELTS WITH CORSET BACK

SPINAL CORSETS WITH PELVIC STEELS AND SHOULDER STRAPS

A NEW KENLASTIC SEAMLESS STOCKING IS MADE WITH
EXTENSION HEEL

CHAS. B. E. TAYLOR

ELIZABETH KENDRICK TAYLOR

204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

properly trained to step into their position as custodians of the community's health. In so-called "teaching hospitals" the undergraduate medical student becomes, at least partially, a hospital responsibility. But I wish we could call all of our hospitals "teaching hospitals," whether they are concerned with training undergraduate or postgraduate medical students. The hospital has much to teach all of us, no matter what our age or training.

In the same category comes the function of training good nurses, social workers, dietitians, or technicians. Again I feel that it ought not to make any difference whether there is a school of nursing connected with the hospital or not. It is difficult to escape the responsibility which the individual hospital has for the education of the nurses and other workers, whether their status is that of undergraduate students or not.

The last essential function which I shall mention is closely akin to that of educating the medical staff. It consists in an honest effort to increase the sum total of medical knowledge. This is a many-sided opportunity including the following possibilities: spreading abroad health education for the laity; discovering practical means for improving community health through physicians, nurses, social and public health workers, teachers and health agencies in general; making available new medical knowledge for immediate application by the staff of their own hospital patients; and finally contributing to actual increases in our knowledge of how to take care of the human machine in health and disease, for the sake of the medical profession throughout the world.

When the wise physician is called upon for advice concerning the treatment of a patient with chronic heart disease he asks himself first about the function of the heart and, second, in what way some possible therapeutic agent may improve that function. With something of this same critical attitude let us now ask ourselves in what possible way research may affect the functions of the hospital as we have outlined them. For the sake of convenience I shall start with a consideration of the influence

ARTHUR L. BALDWIN

Certified Public Accountant

TAX COUNSELOR

Fontius Building, Denver TA. 1444

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

Eighteen Years' Success with HAY FEVER

THIS is the enviable record of Pollen Antigens Lederle introduced by the Lederle Antitoxin Laboratories in 1914.

Pollen Antigens
Lederle

have added evidence each year to their value in the prevention or relief from symptoms of Hay Fever.

Each year an increasing number of physicians have familiarized themselves with the Hay Fever problem and are relieving patients of their seasonal attacks.

Pollen Antigens Lederle are glycerolated extracts. They are uniformly stable so that the original strength of the antigen is maintained for a long period.

The Lederle Laboratories maintain a Department of Allergy supervised by experts and welcome correspondence on all questions pertaining to hay fever in any locality.

Distributed by
HEALY & OWENS
1400 Larimer **Denver, Colorado**
LEDERLE LABORATORIES INC.
New York

PRESCRIBE
KNOX
SPARKLING GELATINE
IN **DIETS** FOR **DIABETES**
LIQUID *and* **SOFT FEEDING**
REDUCING and ANEMIA

KNOX is pure, granulated plain gelatine with 85-86% protein content. Free from flavoring, coloring or sweetening—therefore combines safely and perfectly with fruits, vegetables and other foods for all diets.

KNOX *is the real Gelatine*

Data and Recipe Books on Request

KNOX GELATINE LABORATORIES, 418 Knox Ave., Johnstown, N.Y.

Cocomalt contains not less than 30 Steenbock (300 ADMA) Units of Vitamin D per ounce and is licensed by Wisconsin Alumni Research Foundation under Steenbock Patent No. 1,680,818.



Accepted *by the* American Medical Association
Committee on Foods

COCOMALT—the delicious food-drink so useful post-operatively and in the treatment of undernourished children, convalescents, expectant and nursing mothers, etc.—is accepted by the Committee on Foods of the American Medical Association.

This delicious chocolate flavor food-drink is unusually high in caloric value—yet easily digested and readily assimilated. Children love it. Invalids and convalescents drink it eagerly. And every glass of Cocomalt is equal to almost two glasses of plain milk in caloric value; for *by actual test* Cocomalt adds 110 *extra* calories to a glass of milk and contains not less than 300 ADMA (30 Steenbock) units of Vitamin D per ounce—the quantity recommended for one drink.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

What Cocomalt Is

*Cocomalt is a scientific concentrate of partially defatted chocolate and milk, barley malt extract, whole eggs, sugar, flavoring and added Vitamin D. It comes in powder form, easy to mix with milk—HOT or COLD. Cocomalt can be purchased at grocers and drug stores everywhere.

FREE to Physicians

We will be glad to send to any physician requesting it a generous trial can of Cocomalt *free.*

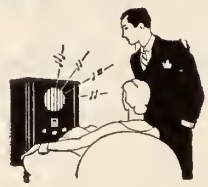
*Cocomalt

ADDS 70% MORE FOOD-ENERGY NOURISHMENT TO MILK

R. B. Davis Co., Dept. 43F, Hoboken, N. J.
Please send me a can of Cocomalt without cost or obligation.
Name.....
Address.....
City..... *State*.....

Aboard the ARISTOCRAT

Luxury!



Radio Reception

In addition, the Lounge Car offers the comforts of detached chairs, inviting divans, observation platform enclosed in glass, writing desk, card tables, a library of current periodicals, late newspapers, soda fountain and a buffet serving soft drinks, sandwiches, coffee, smokers' supplies.

The Aristocrat
(NO EXTRA FARE)

Lv. Denver	. .	4:00 p. m.
Ar. Omaha	. .	6:30 a. m.
Ar. Chicago	. .	7:45 p. m.



Burlington Route

RESERVATIONS

901 Seventeenth St. Phone Keystone 1123
S. R. Drury, General Agent
F. W. Johnson, Ass't General Agent
Denver

of researeh upon the possible eontributions which a hospital may make to the inereasing of medieal knowledge, and finish with the part played by researeh in the care of the sick patient.

It must be apparent to all of us that the hospital is the ideal plaee in whieh to study the more serious diseases in order to learn more about their eauses, prevention, and treatment. The things whieh we do not know about the complex relationship between the individual human organism and the attacking disease always seem to outnumber those points in the problem which we have mastered. Our hospitals full of the siek furnish the material and their staffs furnish the mental and physical effort needed for solving many of these problems. The hospital which eontains sueh material for study but fails to provide enough staff members with suffieient time, energy, and intelligenee for sueh researehes into the eauses and remedies of disease, is missing a golden opportunity for serving mankind. In much the same way the large hospital outpatient department is an ideal plaee in whieh to study ehronie diseases, minor ailments and the results of preventive measures sueh as vaeeination against smallpox, diphtheria prevention, and periodie health examinations. Failure to provide a staff which is adequate for both treatment and study of these patients means a failure to aeeept another opportunity for increasing medieal knowledge. The most pragmatie and necessary question about new remedies or preventive measures is, "does it work?" Frequently such a question ean be answered more satisfactorily in the hospital or its outpatient department than anywhere else.

I faney some of you are saying that this is all very well but you would like to know what the hospital gets out of sueh altruistie work for the advancement of medieal scienee. The first benefit reaped by the institution is a very definite improvement in the performance of its funetion of training young physicians. We cannot deny the importance of this funetion. The young doetor who is trained in a hospital whose only function is the routine dispensing of remedies eannot gain a proper insight into our essen-

NURSES
OFFICIAL REGISTRY

Established to Meet the Community's Every Need in Nursing

Hourly Nursing Service.

Under-Graduate and Practical Nurses Provided.

Positions Filled.

Information on all nursing service.

This registry is endorsed by the Colorado State Graduate Nurses' Association and the American Nurses' Association.

KEystone 0168

ARGONAUT HOTEL



(a) Ordinary milks form a hard curd often regurgitated or eliminated.

(b) Soft-curd milk, being very tender, is easily digested and assimilated.

STOMACH CURDS

SOFT-CURD MILK
IS GENUINE "SPECIAL BABY MILK"

And will help solve some of the problems confronting you in establishing the diet of DELICATE INFANTS

Natural whole soft-curd (Holstein) perfectly Pasteurized milk from healthy isolated cows individually tested for their ability to give milk which forms a very soft easily digested curd produced in accordance with methods developed and instructions given by Dr. R. L. Hill, human nutritionist, U. S. Department of Agriculture. Endorsed by the Medical profession and dieticians for feeding infants, invalids, convalescents and cases of weakened digestion where milk is prescribed.

Upon request, descriptive literature and a generous sample of our soft-curd milk will promptly be sent to any member of The Colorado State Medical Society.

THE LEAGUE DAIRY

933 BANNOCK ST. KEystone 3297

PENCOL
DRUG STORE

Denver's Leading Druggists

504 E. COLFAX YOrk 8300

BIOLOGICS—OXYGEN
PRESCRIPTIONS

At Night Call FRanklin 0041-W

MUCKLE X-RAY COMPANY

The Only Independent X-Ray Company in the West

Distributors of

Standard X-Ray Company
Buck X-Ray Supplies
Burdick Quartz Lamps and Zoalites (Infra-Red)
McIntosh Physical Therapy Apparatus

Expert Service on X-Ray

1632 COURT PLACE DENVER

tial ignorance in medicine nor will he receive much stimulation to seek further into the causes of disease or new methods of treatment. A brief experience with interns in a hospital in which investigative work is going on will convince the most skeptical observer that they are receiving an invaluable part of their equipment as sound practitioners of medicine from such studies. They become more alert in their observations, they take less for granted in reaching a diagnosis, they are more humble and therefore safer therapeutists, and, finally, they themselves are constantly stimulated to search for undiscovered facts or principles of diagnosis and treatment.

Moreover this attitude is contagious in such an institution. Not only the young physicians but also the nurses, social workers, nutritionists, technicians and, indeed, all the medical assistants tend to acquire a more healthy attitude toward medical progress as it concerns the prevention of disease and the treatment of sick patients. In hospitals associated with medical schools the increased value to the students is so obvious as to need no further argument.

There is also a more material and very real benefit which is a sort of by-product of the service rendered by research to the training of the hospital staff. When the intelligent young physician from a good medical school is deciding upon his choice of hospitals in which to continue his training he gives preference to the one with a research department—the one whose staff are showing a scientific, investigative attitude toward medicine. The less intelligent, short-sighted student of medicine applies to the hospitals which lack this research spirit and the facilities which this brings. Thus the institution which includes research as an integral part of its work actually succeeds in building up a higher class staff of interns and younger physicians than does the hospital which fails to provide for such investigative activities.

I have already said that the chief function of a hospital is the treatment of the sick. In what way does research affect this particular function? If it is true that the presence of such investigations in a given institution

SPENCER SURGICAL GARMENTS BELTS for WOMEN or MEN With or Without Ptosis Hernia or Kidney } PADS or Sacro Iliac Support

SPENCER CORSETS of DENVER
218 Empire Bldg. TAbor 6289

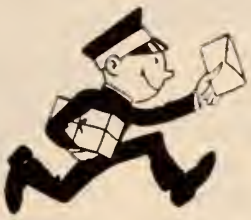
Conway's FLORAL SHOP
1064 SO. GAYLORD
PEarl 0622

June Brides and Graduates

Let us give you an estimate on any wedding decorations and bouquets which will be used in your family.

Presentation bouquets are nice to send to June Graduates.

LET
The WESTERN MESSENGER SERVICE
Run Your Errands



At your service, when you're in a hurry

Phone TAbor 5345

424 18th St.
Denver Colorado

BARGAIN GOLF

NOT A NEW GAME— JUST NEW PRICES OUR INTRODUCTORY OFFER

THINK OF IT!
An 'Annual" for $7.50
Or Week Days 25c, All Day
Or Saturday, Sunday and Holidays 35c, All Day
An 18-Hole Course and NO WAITING

You have wanted a place of seclusion to RELAX from the cares of the day—

HERE IT IS

PRATT RECREATION Inc. RANCH

Out East Colfax—See Sign 7 Miles East of Fitzsimons Hospital; Turn 1 Mile South

PHONE AURORA 347-R3

Horseback Riding Polo

P. S.: Let the Kiddies Ride Horseback While You Golf



The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

WINDSOR-MEADOW GOLD

MAin 5131

leads to definite improvement in the skill and wisdom of its professional staff, then we may feel justified in concluding that the individual patient will receive more adequate care. That is, the initial work-up will be more thorough and more apt to lead to a corrective diagnosis while the treatment which follows will be more adequate. Moreover, such discoveries as are made in the research department of the hospital are available first for the patients in that institution. Thus when Drs. Minot and Murphy of Boston worked out the liver diet for pernicious anemia, at the Massachusetts General Hospital, the patients at that institution were the first to benefit from the discovery.

One often hears the criticism that much harm is done by research enthusiasts using hospital patients like experimental animals. The complaint is made that their theories are not sound enough to lead to any such brilliant results as the discovery of a cure for pernicious anemia. This is not a criticism of sound medical research but rather of some individual not fit for hospital research or else of the hospital itself. If every one of the medical staff are thoroughly imbued with the conviction that the first duty of the institution is the efficient care of the sick, then such a situation will not be allowed to exist. That wise old therapeutist, Henry Shattuck of Boston, used to point out frequently to his students that the first question one must ask oneself in outlining a plan of treatment is "will it do any harm." This is just as true of investigative work as it is of treatment. The word "research" sometimes conveys to the lay mind this same idea of cold-blooded scientists experimenting on people. Every well-educated physician today should have such firmly established ideas on the value of medical research that he can help to re-educate the layman to a proper understanding of its place in medicine. He should be able to point out that most human progress has been dependent upon just such searches into the nature of the universe on the one hand and into the intricacies of the living organisms which inhabit it, on the other. In so far as we are able to do this successfully we avoid another



DO YOU KNOW HOW YOUR Rx IS SURFACED?

IT'S WISE to occasionally check up on the surfacing of lenses for your prescriptions. Upon this process, which materially interprets your refraction, depends the satisfactory vision that your patients expect after wearing the lenses prescribed by you.

In the Riggs Modern Prescription Laboratories, where surfacing machines are operated by specialists, optical accuracy is assured. Each lens is ground to the exact desired thickness. Each has the correct optical center and each is surfaced to absolute curves on tools accurate to within 2/100 of a dioptre. Because of the special pitch polishing method employed only in Riggs Laboratories, the exact curves are maintained. This also accounts for the perfect focus and lustrous finish of each lens.

All together each prescription leaving a Riggs Laboratory is as perfect as only 25 years of experience has taught us.

Check up on *your* surfacing—is it up to Riggs standards?

RIGGS OPTICAL COMPANY

There is a branch conveniently near you to serve you with quality optical products.

Almost as **Simple** *as* **Breast Milk**



NO complicating feeding calculators are necessary in feeding S.M.A., the antirachitic breast milk adaptation.

As with breast milk, the total quantity of S.M.A. is merely increased as the infant's requirements increase with age.

For the convenience of the busy physician we have prepared the simple suggested feeding table shown above. On the other side are brief directions for the preparation of S.M.A. and suggestions on the amounts to be fed.

Free: Send the coupon for your copy of this single thickness celluloid card, 2⅝" x 4⅜", with rounded corners to go into the pocket readily.

What Is S.M.A.?

S.M.A. is a food for infants—derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liveroil; with the addition of milk sugar, potassium chloride and salts; *altogether forming an antirachitic food.* When diluted according to directions, it is *essentially similar to human milk* in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

ACCEPTED AMERICAN MEDICAL ASSN.

S. M. A. CORPORATION
4614 Prospect Ave., Cleveland, Ohio
Please send me without charge or obligation

- ☐ Celluloid feeding card.
- ☐ Trial supply of S. M. A.
- ☐ Fourth revised edition of Milk Allergy Booklet.

23-62 Attach coupon to ℞ blank or letterhead.



NATURE'S METHOD
of Combating Intestinal Putrefaction



Change the flora by providing the right soil with a food —

LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)

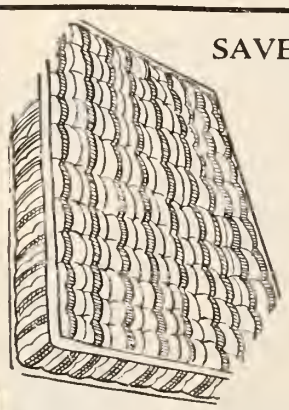
Promotes the growth of normal protective germs.

Samples and literature on request.

The Battle Creek Food Co.
BATTLE CREEK MICHIGAN

BRONZE TABLETS
BENEFACTOR'S MEMORIAL PLATES FOR HOSPITALS
IN STAMPED BRASS OR CAST BRONZE
BRASS AND BRONZE SIGNS
FOR THE PHYSICIAN
SACHS-LAWLOR
DENVER
ESTABLISHED 1881

Announcing *The Introduction of*
THE STILPHEN AIR CONDITIONING UNIT
Dependable—Simple—Economical
Particularly adapted for Hospitals—Institutions
Write for circulars illustrating and describing this machine
C. A. Stilphen Engineering and Manufacturing Co.
1129 Eighteenth St., Denver, Colo.
KEysotne 0929
Exhaust Fans for Ventilation



SAVE TWO-THIRDS
By having us Renovate your old Mattresses, Pillows, Comforts, Feather Beds and Box Springs like new.
We convert your old Mattresses into new "SPRING CENTERS"
Also Upholstering work done very reasonably.
Union Mattress & Pillow Co.
2640 Larimer Street
Denver, Colorado
Tabor 5989

serious criticism, namely, that research in a hospital worries the patient, thus producing a bad psychological response to therapy.

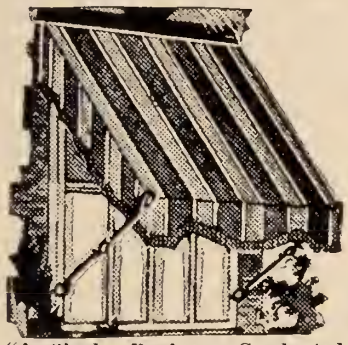
In considering the influence of research on the care of the sick, we must also remember that sound medical research in our institutions may benefit not only the patients already in a given hospital, but future sick and suffering humans in that and hundreds of other hospitals. One might logically go even further and state that it will definitely improve the quality of medicine practiced in that community both by its immediate effect on the medical staff of the hospital and by its beneficial influence on the training of the students, interns, and young physicians who are so soon to have the medical care of the community as their responsibility.

I have tried to show that research has definite contributions to make toward an improvement in the essential functions of a hospital. There remains only the question of what place it should occupy in the hospital organization. In a small institution or in a specialty hospital for one group of patients, such as an orthopedic hospital or a cancer institute, the organization of research must vary according to the peculiarities of the hospital. If it is largely a clinical institution then there should be a research department which is on an equal footing with the other departments, adequately staffed and financed. In our large general hospitals I feel that the various departments—namely, medicine, surgery, pediatrics, obstetrics, and the various specialties—should each have an adequate staff and laboratory space for carrying on investigative work. Surely no one research chief in such an institution could possibly direct investigation in so many different lines. Thus it becomes necessary for some one member of each departmental staff to direct the investigation going on in his own division. Overlapping of function is easily avoided by periodic conferences of those doing research in the various departments. Actual stimulation of individual investigations and the inauguration of cooperation between two or more departments is often the result of such discussions.

MODERN AMBULANCE SERVICE *for* MODERN NEEDS



AMERICAN AMBULANCE CO.
YORK 0070 • 1860 DOWNING ST • DENVER, COLORADO



"A Shady Business Conducted on Sunny Principles"

AWNINGS of Character

BEAUTIFUL—SUAVE—BECKONING

Correctly tailored and installed by exclusive awning makers from your choice of the world's finest fabrics at sensible prices.

American Tent & Awning Co., Inc.

1388 So. Broadway PEarl 8224

SUNLIGHT FOR THE LARYNGEAL TUBERCULOSIS PATIENT

The curative and pain-alleviating power of Sunlight is highly recognized in the treatment of Laryngeal Tuberculosis. Sunlight is now projected directly upon laryngeal tissues with a SOLAR-THERAPEUTIC-LARYNGOSCOPE; a device for condensing and projecting light on diseased portions of the throat and larynx. The operation of this device is simple and enables the patient to see his own larynx and to direct the light on the lesion. Sunlight is a natural antiseptic and healing agent, it helps to maintain the function of the cell and to increase metabolism of the tissues. The cost of the apparatus is reasonable and within the reach of every patient. Write for descriptive literature to:

VERBA LARYNGOSCOPE COMPANY
COLORADO SPRINGS, COLORADO



"TESTED FOR TOXIC REACTION"

SUCCESS DEPENDS UPON your achieving the DESIRED RESULTS. Let the LANE INTRAVENOUS and SUBCUTANEOUS PRODUCTS help you to ATTAIN THIS END.

QUALITY SERVICE ACCURACY

LANE LABORATORIES, Inc.

WRITE FOR PRICE LIST COLORADO SPRINGS, COLO.

24-HOUR SERVICE

AMBULANCE *and*
PULMOTOR SERVICE

DAY AND NIGHT PHONE
Main 830

John E. Wylie, Mgr.

112 Exchange Place, Colo. Springs, Colo.

Packard Invalid Sedan
Regular Equipped Ambulance

"Say it with flowers"

Park Floral Co.

Phones M. 1713-1714 1643 Broadway

Our New Service Department

Dear Reader:

Colorado Medicine together with the Co-operative Medical Advertising Bureau (a department of the American Medical Association) of Chicago have established a Service Department to answer your inquiries about pharmaceuticals, surgical instruments and other manufactured products such as equipment, supplies, etc., which you may need for your office, home, hospital, sanitarium, or automobile.

We invite and urge you to use this service. It is absolutely free and entails no obligation.

Between the offices of Colorado Medicine and the Co-operative Bureau we are equipped with catalogs and price lists of all manufacturers, and can supply the information you desire by return mail.

Whenever possible, such products are advertised in our pages. But perhaps you want a certain instrument or other product which is not advertised, and you do not know how or where to secure it. Colorado Medicine will give you the information.

Our address is 658 Metropolitan Building, Denver. We want to serve you.

COLORADO MEDICINE.

Such a plan as this has been in operation in a number of teaching hospitals in this country for some time. Those who have been able to observe the actual result of such organizations are usually enthusiastic about its effect upon the hospital staff as well as upon the accomplishment of sound research. The working out of some definite plan for research work which meets the requirements of the individual hospital seems to be imperative, if we expect our institutions to make the most of their opportunity for service. By giving research its proper position in relation to the hospital organization as well as to the various clinical departments, we may confidently expect a healthy improvement in all the essential functions of the hospital including the actual care which the patients receive from its medical staff.

Summary

Research has been defined and related to medicine.

The essential functions of a good hospital have been discussed.

An attempt has been made to show that the presence of sound research in any good hospital tends to have a beneficial effect on each of its functions.

The logical place for research in the hospital organization has been suggested.

WOMAN'S AUXILIARY

(Continued from Page 266)

FROM OUR STATE PRESIDENT

Dear Auxiliary Members:

As we near the close of the National Auxiliary year and prepare reports for the convention, we look over our records and in some cases are disappointed at the results, but others have accomplished so much that the scales are balanced, and we feel that the year has been worth while. County presidents and chairmen of committees have so ably filled their offices, have been so interested and so prompt in their responses to communications that they have greatly facilitated the work.

The visit of our National President, Mrs. A. B. McGlothlan in October and of the chairman of organization of the western district, Mrs. James Percy, later in the year were outstanding features and gave us inspiration. We have not come up to their expectations or to our own desires in the year's work but have progressed a few steps, in that we have outlined suggestions for county presidents, following closely the folder of the National, and have committees corresponding to the National committees, have increased our membership slightly, and have brought our files up to date. Philanthropic work has played a large part

STIMULATING INTEREST WITH MENTAL COMFORT

Small Portable Aquariums for the Bedridden Patient or the "Shut-in"

Adopted by many physicians for the reception room where the patients long wait is relieved through the relaxed interest that the aquarium invariably promotes.

Tropical Fish, when stocked in our aquariums planted with aquatic vegetation, require no changing of water, as these plants produce oxygen in sufficient quantity to keep the water fresh.

Small, dainty, alluring and scintillating in color, these toy fish are brought to you from the tropics of both hemispheres. Live bearing fish that give birth to their offspring. Five minutes after they are born these tiny marvels in color and agility can swim, eat and take care of themselves. You are cordially invited to pay us a visit any evening or all Sunday. Our interesting descriptive folder will be mailed upon request.

CLARENCE A. PETERSON

2436 W. 38th AVE. GAllup 6748-R

MATCHED OFFICE SUITE

IN PERIOD DESIGN

at just 1/2 price

Purchased from a Grand Rapids manufacturer who discontinued his line of office furniture and offered the salesroom samples at exactly one-half the regular prices.

This is a professional man's suite consisting of flat top desk, narrow refectory table, cabinet, carved four-fold screen, swivel chair and arm chair; in carved English oak with deep red leather.

STANDARD PRICE $780.00. OFFERED FOR $390.00

HOWARD LORTON INC.

724-746 SPEER BOULEVARD

Are You Listenin'?



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado Ext.

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter



Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen or Silk. Washable as underwear. Three distinct types, many variations of each.

The Picture Shows "Type N"

Storm belts adaptable to all conditions, Ptosis, Hernia, Pregnancy, Obesity, Sacro-Iliac Relaxations, High and Low operations, etc.

Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia

in the different auxiliaries this year, 450 garments having been made by Pueblo County alone.

President's Day of Denver County was the first of its kind. It was a great success and opens a new field of work for the Public Relations Chairman. Hence we work and hope and trust that the year has not been wholly a failure and that we are on a firmer foundation for those who succeed to build upon.

Let us talk and work towards a splendid attendance at the National meeting and at the state meeting at Estes Park in September.

Dr. Lowell Little, President of Larimer County Medical Society, and the Auxiliary to the Larimer County Medical Society, through Mrs. P. J. McHugh, extend a most hearty invitation for all the members of both societies to be present at the annual meeting in September in Estes Park. In addition, Mrs. McHugh writes, "We will do our best to make your stay pleasant, and with the wonderful surroundings there, feel sure you will all be repaid for coming." Further particulars concerning the state meeting will appear at a later date.

MRS. T. MITCHELL BURNS,
President.

NEWS FROM COUNTIES

DENVER

The annual dinner dance and card party of the Denver Auxiliary was held Thursday night, April 15, in the new mirror room of the Brown Palace Hotel. There were ninety-five present. Those receiving were Drs. and Mesdames T. M. Burns, Frank Stephenson, H. J. Corper, and Lorenz Frank. Mrs. John Ryan was in charge of the affair with Mrs. W. E. Mogan, assisting.

LARIMER

Larimer County Auxiliary held election of officers at the Berthoud meeting May 4 with the following results: President, Mrs. Victor E. Cram, Fort Collins; Vice-president, Mrs. B. L. Adams, Loveland; Secretary and Treasurer, Mrs. Duane F. Hartshorn, Fort Collins.

MESA

Mesa County has fourteen members. There are four other women eligible, and we are sure three of these will become members this year, making the total seventeen.

We have been organized so short a time, and the start has been rather difficult in that we all have so many activities—the majority having children of grade school age. Then too, the poor and health conditions are very well cared for in our small city so that we really have nothing definite in view as yet.

The getting acquainted with each other has been a real pleasure to all. Occasionally, there is a short story read, a book review, travel talk, educational movies, music, and the usual current events.

Mrs. E. H. Peterson was instrumental in placing Hygeia in the Junior College and in two grade schools.

As for current items—Mrs. H. Plumb, our honorary member, with her two children is in California. Mrs. H. R. Bull is in Denver for the spring vacation. Mrs. H. H. Zeigle of Collbran



The success of your kitchen depends on the method of cooking and the kind of cook ware used. Cook without water, bake without an oven, fry without smoke.

THERE IS AN ART CAST UTENSIL FOR EVERY PURPOSE

ART CAST PRODUCTS, Inc.

Denver's exclusive cook-ware store.

17 SO. BROADWAY, DENVER SUnset 0438

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

Office Phone M. 321 Res. Phone M. 4422-R

GEO. LOXAM

Surgical and Invalid Supplies

20 Independence Bldg.
COLORADO SPRINGS, COLO.

Physicians and Surgeons' office supplies, Surgical Braces and Supports, Operating Tables, Surgical Dressings, Enamelware, Rubber Goods, Laboratory Supplies.
Instruments Repaired

Trade discounts to Physicians, Surgeons

COLORADO COLLEGE of PODIATRY

1554 California St., Denver

Bertha DeWolfe, D.S.C., Dean

Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

CUSTOM MADE

NU-BONE

SUPPORTING OR FOUNDATION GARMENTS

For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.

RUBY A. BETTS

22 Lincoln SPruce 7998

recently returned from a six weeks visit with relatives in Kansas.

We meet every third Tuesday with average attendance of ten.

MRS. E. S. STONG,
Secretary.

PERIODIC HEALTH EXAMINATION

In 1931 the National Tuberculosis Association issued a timely small folder "Go to Your Doctor Before He Has to Come to You," a folder that should be known and heeded by all men, women and children. It energetically supports the idea of Periodic Health Examinations. Pennsylvania has a Periodic Health Examination Chairman, Mrs. John H. Page, who is ably promoting this project and getting results. Here is her appeal:

"One out of six applicants for life insurance are declined or postponed. The annual health audit will detect albumin or sugar, high blood pressure, slight cardiac disorder, incipient tuberculosis, beginning neoplasm, and any and everything else. Your family physician will do the rest. Why does it profit a person to be an ostrich with his ailments, or like the Spartan youth to hide a disease until it gnaws out his vitals? Get the disease before it gets you. Get it early. Get it before you think you have it.

People have too long had such faith and confidence in their physician that they think he can cure anybody who has not been dead over three days. The profession admires the faith of their clientele, but dislikes to be put in such superlative and unequal tests.

If elevators are inspected regularly, why not one's mouth and teeth? If a boiler must be examined regularly, why not your heart and lungs? You have tested the brakes on your car, why not the kidney function? You have your watch regulated, but not your diet. You have your batteries charged, but let your weight run down from disease.

Should the most complex and wonderful machinery in the world, that not made with hands, be allowed to become broken or impaired, to corrode or degenerate? Neglect your business if you must, neglect your golf if you can, neglect your wife if you dare, but don't neglect your physician and a yearly physical examination and health inventory on your birthday."

EDITORIAL NOTES AND COMMENT

Work of the American Red Cross

"Red Cross Public Health Nurses, Nutritionists, and Home Hygiene and Care of the Sick instructors, employed by local Red Cross Chapters throughout the United States, are making a large contribution to public health in the present economic distress with its attendant breakdown in living conditions and diet," William M. Baxter, Jr., manager of Midwestern Red Cross Headquarters, has asserted. "Bad health annually costs this country the estimated sum of six million dollars," Baxter added,

CORRECTIVE FOOTFITTERS

44 South Broadway Phone Spruce 5276

Denver, Colorado

Corrective shoes with double arch supports for the entire family, fitted by expert and experienced foot fitters from an orthopedic standpoint and according to the type of shoe best adapted to each foot. Eliminate your foot troubles by wearing shoes fitted correctly and scientifically. We co-operate with the medical profession through our licensed chiropodists and trained shoe-fitters, as 90 per cent of our fittings are with people having foot ailments.

Special lasts made for abnormal feet. X-ray service at our Denver store. Write us directly for catalogue and details for ordering by mail or for interview with our traveling representative when in your territory. Mail orders given special attention.

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

Graduate School *of* Medicine
THE TULANE UNIVERSITY OF LOUISIANA
Approved by the Council on Medical Education of the A. M. A.
Post graduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

L. D. DUTCHER Phone 2995-R


DUTCHER AMBULANCE SERVICE
BALLOON EQUIPMENT
INVALID SEDANS
315 West 4th Street Phone 390
PUEBLO

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5111
DAY STORAGE $5 PER MONTH
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

Fine Upholstered Furniture Made to order
Furniture repairing of all Kinds
Henry Meyer
Upholsterer and Furniture Manufacturer
DENVER
538 East 17th Ave., at Pearl St.
Phone TAbor 4087

"and unemployment and want are not going to help to lower this huge national bill."

Mr. Baxter stated that 769 Red Cross Public Health Nurses employed by 517 Red Cross Chapters, who are now returning to their duties, represent a highly important, reliable source of health information. These nurses, during the last Red Cross fiscal year, inspected one million school children and made 1,300,000 visits outside classrooms. Their work is always done in close clearance with local medical authorities and no Red Cross Public Health Nursing service is begun unless it can be seen in advance that it can be continued on a permanent basis. Prominent physicians are participating actively on local Red Cross chapter nursing committees; and the national nursing organizations are represented on the National Red Cross Nursing committee in Washington, D. C., Mr. Baxter said.

"In times like these the public can be proud of these remarkable women who bring their fine professional training to city tenements, prairie counties and southern mountain lands alike, with indefatigable courage and human understanding. Red Cross nurses are particularly symbolical of the spirit of the organization this year, when the fiftieth anniversary of its founding is being celebrated.

"Through our Chapter Nursing Services, the Red Cross is providing nursing supervision in considerable measure for thousands of babies and growing children. It is greatly increasing the number of children protected from diphtheria, typhoid fever, and smallpox, through its immunization campaigns. It is building safeguards around thousands of school children and helping and encouraging their parents to correct their more serious defects, both physical and environmental. Through both nurses and nutrition workers, it is helping rural teachers to develop in the children respect for good health as a tangible form of wealth, and to give them a practical knowledge of health habits. The Red Cross is already going strong in this field of battle and has

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

FURS

REPAIRING :: REMODELING

Fur Garments Made to Order

Large Selection of Silver Fox Scarfs



Andre De Vajda
FURRIER
1525 TREMONT ST.
Denver, Colorado



Thirty-nine years in the same location

SELLING HIGH-GRADE

COAL, WOOD
GRASS SEED
FERTILIZER

Honest Weight *Prompt Delivery*

The DeSellem Fuel and Feed Company

PH. TAbor 3205

3463 Walnut St. Denver, Colorado



A QUIET, restful nook for elderly ladies. Modern conveniences. Artesian water. Fine shade and shrubbery. Day and night nurses. Mild mental cases invited. No tuberculars. Rates very reasonable.

THE McCLELLAND HOME

920 Griffith Lane, Arvada, Colo.

Phone Arvada 533

many victories to its credit. But the fight is far from over," Baxter stated.

"At present there are 1,555 Home Hygiene and Care of the Sick instructors. The Home Hygiene teachers instruct in the principles of health and simple procedure for caring for the sick in the home, a service of inestimable value during unemployment, when improper care might result in death. Physicians are laboring valiantly, but need at least a semblance of expert cooperation. The Red Cross Nutritionists teach the principles of food selection as related to health. Their widespread influence is felt in better food purchasing by housewives, who make the money stretch farther, in securing food values and quantities. When the pocketbook is weak, it is absolutely necessary to get the greatest possible food value when buying at the stores.

"Other significant Red Cross contributions relating directly or indirectly to the public health may be attributed to Disaster Service. Through this service the Red Cross has helped to provide the safeguards of life and health for thousands of men, women, and children in disasters by providing food, clothing, shelter, medical care, health protection, and other urgent necessities.

"Perhaps the most significant service of this character ever rendered by the Red Cross was given in recent months in the drought areas. The Red Cross provided the necessities of life and health for more than 500,000 families, totaling more than two million individuals. Hot school lunches were served to thousands of school children in eleven states. Medical supplies and hospital care were provided for those seriously ill, who would have suffered or whose lives would have been endangered for lack of these.

"While prior to 1917, Red Cross nurses had served in many large disasters, such as the Mississippi and Ohio River Floods, San Francisco Fire, et cetera, the World War was their supreme test. Approximately 20,000 were assigned to this gigantic military program.

DENVER SANITARIUM

—FOR SALE—

Partly Equipped, Beautiful Grounds, Inspiring Mountain View

Accommodates About 50 Patients

GREAT BARGAIN

1618 BROADWAY

Frank F. King
REALTOR

MAin 2333

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

Mothers do not forget to give babies their feedings, though they easily might neglect to give them an added antirachitic agent

The outstanding advantage of giving infants irradiated DRYCO for the prevention of rickets is that it functions automatically. The specific factor is incorporated in the diet of the infant, relieving the physician of dependence on the cooperation of the mother.

Build your baby patients' resistance to summer troubles thru their food—IRRADIATED DRYCO

PRESCRIBE

DRYCO

Made from superior quality milk from which part of the butterfat has been removed, irradiated by the ultraviolet ray, under license by the Wisconsin Alumni Research Foundation (U. S. Patent No. 1,680,818), and then dried by the "Just" Roller Process.

ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED

DRYCO is clean milk, not cleaned milk. It requires no refrigeration, is easily and quickly prepared in every degree of concentration to meet the needs of the individual infant and to protect him from rickets, lowered resistance because of faulty nutrition, gastro-intestinal disturbances, diarrhea, dehydration and collapse.

COUPON

Send for samples and new booklet:

"Irradiated Dryco"

The Dry Milk Co., Inc., Dept C,
205 East 42nd Street,
New York, N. Y.

"In the autumn of 1918, there came the great influenza epidemic. During this period, with approximately 22,000 of its nurses in service, and local needs unprecedented, the Nursing Service accomplished the gigantic task of securing and assigning over 15,000 additional nurses and lay personnel in the United States to cope with this scourge. Large numbers of Red Cross nurses have since been provided for such major disasters as the Midwestern tornado, Florida and Porto Rico hurricanes, Mississippi flood of 1927, as well as for many minor ones.

"In 1912 the Red Cross organized the Town and Country Nursing Service, and during the first year fourteen services were established. By 1917, there were ninety-seven Red Cross Town and Country nurses employed. In 1918 the name was changed to Red Cross Public Health Nursing Service. Chapters in rural and semi-rural districts were authorized to develop public health nursing services. So rapid was the expansion that 1,145 Chapters were offering this service in 1921, with a staff of more than 2,000 nurses. Since 1912 many of these services have been so successful that local or county authorities have assumed them wholly or in part. In 1928 the service was committed to the field of extending nursing care in rural communities."

CAMP SURGICAL AND SEMI-SURGICAL SUPPORTS

Maternity Post Operative
Convalescing and Ptosis Supports
Abdominal Belts
Sacro-Iliac Binders, Orthopedic Back Splints

Mrs. J. M. Blinn Pfister, *Nurse*
SURGICAL CORSETIERE
Phone Main 7530
Hours, 7 a. m. to 1 p. m.
1515 Glenarm St. Denver, Colo.



IMMATERIA MEDICA

Rastus: "Ah's sure advanced in de pas' couple ob years."

Mose: "How's dat?"

Rastus: "Well, two years ago ah was called a lazy loafer, and now ah's listed as an unfortunate victim ob de unemployment sitcheeyashun."

* * *

A return to femininity is advised.

By which sex?

* * *

Wife: "Henry, what on earth did you do with my egg timer?"

Hubby: "Oh, I'll bring it back. I was just using it to age the Scotch."

* * *

Used car salesman: "What is the matter with the car you bought last week?"

Stung One: "Everything makes a noise except the horn."

"Why do you eat in the cafeteria and not in the grill?"

"Oh, the doctor said I should take a long walk before meals."

GUARD HOMES and OFFICES
Against Dust, Insects and Drafts
WITH
MONARCH METAL WEATHERSTRIP
A. W. Hall, Mgr.
809 South High St., Denver Phone PEarl 3817
Monarch Is the Only Weatherstrip That Is Adjustable

COLVIN BROTHERS
MEDICAL BOOKS

Ph. MA. 3866. 221 Republic Bldg., Denver

NEW BOOKS:

Marriott—Infant Feeding
Ballenger—Ear Nose and Throat
Buckstein—Peptic Ulcer X-Ray
Crossen—Diseases of Women
Sante—Chest X-Ray

PHYSICIANS' EXCHANGE

Salaried appointments for Class A physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoes National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member the Chicago Association of Commerce.

Take this journal home to your wife.

DENSIN TOOTH POWDER
A Natural Dentrifice

Serves Three Purposes:
MOUTH WASH
GUM HARDENER
TOOTH CLEANSER

A powder that should please the most discriminating.

For sale by all druggists—thirty-five cents

SNYDER LABORATORIES
228 E. & C. Bldg. Denver, Colo.

for Quality
Zinc Etchings
Color Plates - Half Tones

Seeleman-Ehret
Photo Engravers

Tabor 2701 — SE — 1950 Champa Street
Denver Colorado

AETNA

COMPLETE MALPRACTICE PROTECTION

By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE
AETNA LIFE INSURANCE CO.
Fred E. Breisch, Manager
529 Midland Savings Building
KEystone 6205



Nature Made It!

ORIGINAL MANITOU Sparkling Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

MEMBERS

of the

Colorado State Medical Society

PLEASE NOTICE

ADVERTISING space in Colorado Medicine is worth just what you make it. When you buy from firms advertising in Colorado Medicine you protect yourself against questionable products and you increase the value of this, your own Journal, to its advertisers. If a product is not advertised in Colorado Medicine it may have been declined in order to protect you. Remember this, and use these pages as your buying guide.

TELEPHONE KEYSTONE 8428

QUALITY

F. W. Berbert — BERBERT — *Julius Berbert*

FIRST

The latest patterns of surgical instruments always in stock.

The most modern manufacturing plant in connection, for special work and repairs of all instruments.

ORTHOPAEDIC APPLIANCES

Elastic Stockings Trusses
Abdominal Supporters

GEO. BERBERT & SONS

228 16th St., Opposite Metropolitan Bldg.

English Prof.: "I want your sentences to be so clear that they can be understood by the most stupid person—then I can tell what you mean."

* * *

A teacher was drilling her class in the principles of subtraction. "Now, if you subtract twenty-five from thirty-seven, what's the difference?"

"Yeah, that's what I say," answered one of her pupils, "I think it's the bunk too."

* * *

A chap was arrested for assault and battery. The judge asked him his name, occupation, and what he was charged with.

"My name is Sparks, I am an electrician, and I am charged with battery."

"Officer, put this man in a dry cell."

* * *

A woman walked into a certain store and asked for a package of Limburger cheese. She was not satisfied until the grocer unwrapped it for her to sniff. "It does't smell as strong as the kind I used to get," she complained.

"Well, ma'am," drawled the proprietor, "it's hard to distinguish the odor nowadays with business so rotten."

He stood extraordinarily still; a dappled leaf dropped from a palm tree and lodged on his bowler hat; at the other end of him a little dog mistook him for a lamp-post. This was no joke.

* * *

"I caught your daughter kissing the iceman this morning."

"Good heavens, wasting time on him when we owe the grocer fifty dollars."

* * *

"Well, how did you find things in India?"

"Oh, fine and Gandhi."

WANTADS

DOCTOR'S practice and office equipment. Owner died leaving successful practice of 30 years. Good opening. Mrs. Lunette B. Evans, 313 Prospect Street, Fort Morgan, Colorado.

WANTED—Eye, ear, nose and throat specialist, able to do general practice, wants assistantship to busy physician and surgeon. Box 1, Colorado Medicine.

WANTED—Physician B.S. and M.D. with extensive general practice experience and three years' hospital experience, including much surgery, desires association with physician or surgeon, or salaried appointment. Address % Colorado Medicine.

FOR SALE

Office equipment, library, surgical and laboratory instruments of the late Dr. Eugene H. Brown of Pueblo. Material may be purchased either as a whole or in units. For details communicate with the undersigned. Mrs. Julia A. Brown, 221 Van Buren Street, Pueblo, Colo.

POSITION WANTED

Registered technologist and registered x-ray technician with eighteen years' experience in tuberculosis work, the last sixteen years at Agnes Memorial Sanitarium. Now seeking location due to closing of the sanitarium on July 1, 1932. Margery M. Malins, 2265 Forest St., Denver; telephone FRanklin 1997-J.

PRESCRIPTION PHARMACISTS

to the members of the

COLORADO STATE MEDICAL SOCIETY

City	Name and Address	Telephone
Denver	R. K. ANTHONY, 4901 Lowell Blvd.	GAllup 0294
Denver	BAIRD Pharmacy, 3850 Federal Blvd.	GAllup 0549
Denver	BROTHERS Pharmacy, 5001 E. Colfax	YOrk 2171
Denver	ESHER Drug Co., 2335 E. 28th Ave.	YOrk 0296
Denver	IMPERIAL Pharmacy, 319 16th St.	KEystone 1550
Denver	McGOWAN Pharmacy, 801 Colo. Blvd.	FRanklin 5391
Denver	MUDGE Pharmacy, 3801 Walnut St.	TAbor 4523
Denver	SIXTH AVE. Pharmacy, 600 E. 6th Ave.	SPruce 9706
Englewood	JOHN T. HEPPTING, 3398 S. Bdwy.	Englewood 744
Littleton	LITTLETON Drug Co., Littleton	Littleton 133
Grand Junction	COPELAND'S Apothecary, 523 Main St.	Grand Junction 39
Salida	WAGGENER'S Pharmacy, Salida	Salida 400

TOY TROPICAL FISH

40 Varieties Reasonably Priced

WATER LILIES POND SUPPLIES
FANCY BREEDING GOLD FISH

Ship anywhere; write for price list.

A Full Line of Aquariums, Aquatic Vegetation and Supplies

CHARLES T. GORE

4524 Decatur St. GAllup 0410

Duplicate Keys, 25c Lock Repairing
Key Fitting

GREEN NOVELTY SHOP

(Opposite Court House)

LAWNMOWERS SHARPENED BY MACHINE

Boston, Pekingese and Other Breeds of Puppies

Dog Collars, Harness and Supplies

Phone KEystone 3031 317 16th Street

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically
Special classes for Nurses.

Limited Class Now Forming
Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R *Elna Hoagland, Pres.* 3762 High St.

ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company ... 41
Ambulance Service Co. ... 30
American Ambulance Company ... 29
American Medical and Dental Association ... Cover 2
American Tent and Awning ... 29
Art Cast Products ... 33
Baldwin, Arthur L. ... 20
Barcley Corset Shop ... 11
Battle Creek Food Company ... 28
Berbert, George & Sons ... 42
Betts, Ruby A. ... 34
Boulder-Colorado Sanitarium ... 15
Carlson-Frink & Company ... Cover 3
Chicago, Burlington & Quincy R. R. ... 22
Children's Hospital ... 13
Cocks-Clark Engraving Company ... 40
Cocomalt ... 21
Colorado Artificial Limb Company ... 5
Colorado College of Podiatry ... 34
Colorado Springs Psychopathic Hospital ... 12
Colvin Brothers ... 41
Conway's Floral Shop ... 25
Corrective Foot Fitters ... 35
Cragmor Sanitarium ... 16
Cutter Laboratory ... Cover 4
Daniel-Smith Engraving Company ... 5
Deep Rock Water Co. ... Cover 3
Denver Ice and Cold Storage ... 7
Denver Metals Foundry ... 4
Denver School of Swedish Massage ... 43
DeSellem Fuel and Feed Co. ... 38
De Vajda, Andre ... 37
Dry Milk Co. ... 39
Dutcher Ambualnce Service ... 36
Eben-Ezer Hospital ... 12
Garden Farm Dairy ... 37
Glockner Sanatorium ... 13
Golden Plunge ... 19
Gore, Chas. T. ... 43
Graduate Nurses' Club ... 23
Green Novelty Shop ... 43
Holyoke Hospital ... 17
Hynson, Westcott & Dunning ... 18
Jones, William ... 5
King, Frank F. ... 39
Knox Gelatine ... 21
Lane Laboratories ... 29
League Dairy ... 23
Lederle Laboratories ... 21
Lilly, Eli & Company ... 8
Lorton, Howard, Inc. ... 31
Loxam, George ... 34
Manitou Bath House ... 1
Manitou Mineral Water Company ... 41
McClelland Home ... 38
McKnight Hospital ... 17
Mead, Johnson & Company ... 6
Merck & Company ... Insert between 4 & 5
Meyer, Henry ... 36
Miles & Dryer Printing Company ... 9
Monarch Metal Weather Stripping Co. ... 40
Muckle X-Ray Company ... 24
National Methodist Episcopal Sanatorium ... 14
Old Homestead Bread Company ... 2
Park Floral Company ... 30
Parke, Davis & Company ... 3
Pencol Drug Store ... 24
Peterson, Clarence A. ... 31
Pfister, Mrs. J. M. Blinn ... 40
Physicians and Surgeons' Hospital ... 17
Porter Sanitarium ... 11
Pratt Recreation Ranch ... 25
Presbyterian Hospital ... 15
Prescription Pharmacists ... 43
Rainbow Trout Ranch ... Cover 4
Riggs Optical Company ... 27
Roche Ambulance Service ... 9
Sachs-Lawlor ... 28
Seeleman-Ehret Photo-Engraving ... 41
St. Joseph's Hospital ... 16
Schayer, Max S. ... 5
Shirley Garage ... 36
Shirley-Savoy Hotel ... 35
S. M. A. Corporation ... 27
Snyder Laboratories ... 41
Spencer Corsets ... 25
Stilphen Engineering Co. ... 28
Storm, Katherine L., M.D. ... 32
Taylor, Charles B. E. ... 19
Therapeutic Bath Institute ... 18
Trowbridge Training School ... 34
Tulane University ... 36
Tuxall Corporation ... 9
Union Mattress and Pillow Company ... 28
United States Fidelity & Guaranty Co. ... 9
Verba Laryngoscope Co. ... 29
Wantads ... 36
Western Flying Service ... 11
Western Messenger Service ... 25
Western Newspaper Union ... 20
White Flushing Valve Co. ... 32
Windsor Farm Dairy ... 26
Woodcroft Hospital ... 14

Announcing

KOUMIS

—a palatable, effervescent, predigested milk. Prepared under close laboratory control.

* * *

Koumis is a valuable adjunct to the practice of medicine, and has proved a successful aid in:

1—Establishing a normal flora,

2—Correcting defective nutrition,

3—Treating malignant disease of the stomach,

4—Correcting skin conditions due to metabolic disorder.

* * *

Koumis is also a valuable food and aid in the treatment of tuberculosis and other wasting diseases, in cases of nervous exhaustion, and in post-operative and pre-operative cases.

A Product of:

The

CARLSON-FRINK CO.

MAin 0111

1230 THIRTEENTH STREET

A DANGEROUS FALLACY



In western portions of the United States the dangerous fallacy persists that water from the mountains is pure.

The truth is that mountain water is especially subject to contamination —and contamination of a most dangerous kind.

In Wyoming, Colorado, Montana and other mountain states, cattle and wild animals by thousands die in the open, their carrion corpses rotting on hillsides. A freshet comes and this concentrated virulence is flushed into mountain streams. Millions of fish die and decompose—tourists by hundreds of thousands wade in, wash in, and befoul with excreta the water that the cities in the foothills must drink.

The situation is so bad that cities near the mountains must maintain costly plants to 'doctor" the mountain water with Chlorine Gas. While this kills germs, there are serious objections to it. It is non-assimilable in the human system and, over a period of time, works harmful effects.

The chlorine treatment, moreover, can not remove the decayed animal and vegetable matter with which mountain water is literally loaded. This acrid solution of fecal matter attacks the lining of the entire alimentary canal, impairs digestion—throws extra work upon the liver and kidneys. Children so affected become anemic, lethargic, "pep-less." In adults, many disorders of stomach, kidneys, liver and bowels are noted.

The Only Safeguard

PURE ARTESIAN WATER
or Distilled Water

Deep Rock Water Co.

614 27th St. TAbor 5121

Denver, Colo.

RAINBOW TROUT RANCH

« FISHING POOLS »

"The Fishermen's Paradise"

FLOOD-LIGHTED FOR NIGHT FISHING

All fishing equipment furnished free or bring your own favorite tackle. No fishing license required. Fishing hours 7 a. m. to 10 p. m. Open fireplace accommodations so that you may fry your own fish if you desire.

A TRULY "FAR AWAY MOUNTAIN ATMOSPHERE"

Located three miles south of Littleton on the Colorado Springs Highway and one-quarter mile east of Wolhurst. "Look for Sign."

PHONE LITTLETON 383 R-2 WOLHURST, COLORADO

ToxoK



A Specific Against POISON OAK

PREPARED under government license and supervision in dilute alcoholic solution . . . non-irritating, rapidly absorbed. The antigenic strength of each lot is constant.

The CUTTER *Laboratory*
Established 1897
BERKELEY, CALIFORNIA

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 7 JULY, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

THE LIBRARY OF THE MEDICINE JUL 1932 LIBRARY

TABLE OF CONTENTS

Editorials

Committee on the Costs of Medical Care....269
Take the Mystery Out of Medicine....269
A Former Editor Passes On....270
Colorado as Host....270
Western Branch American Public Health Association....271
Getting Ready for Estes Park....272
Cost of Government....272
Suggest a System for Health Insurance....272

Original Articles

Post-Pneumonic Non-Resolution and Syphilis, R. H. Kampmeier....273
Indications for the Treatment of Obesity, Arnold Minnig....277
"Cowl Fractures," J. D. Carey....280
Evaporated Milk in Infant Feeding, Hermann B. Stein....281

Public Health Notes....282

Library Notes, Book Reviews....286

Medical Biography....288

Secretarial Notes and Comments

Let's Go to Estes Next September....289
Will You Exhibit at the Meeting?....291
Must We Have a Loss in Membership?....292
Medical Societies....293
Obituaries....295
Woman's Auxiliary....297

Wyoming Section

Editorials

On to Rock Springs, July 18 and 19....298
Consolidate the Boards....298
Our President's Letter....299
Obituary....299
Thirtieth Annual Meeting of the Wyoming State Medical Society....300
News Notes....301

Original Articles

Vasomotor and Trophic Disturbances, J. C. Kamp....302

Hospital Section

Editorials

Nurses' Unemployment....Ten
Results of Questionnaire on Hospital Expenditures....Twenty-Four
Midwest Hospital Meeting....Twenty-Six

NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

STANLEY HOTEL, Estes Park, Sept. 8, 9, 10

Make Reservations NOW for Your Annual State Meeting



September is a glorious month in this section of the Rocky Mountains; the bright, sunny days and keen, crisp nights are a combination to hold your enthusiasm at a high level.

Then, the incidental program of golf, saddle horses, trout fishing and motoring over the magnificent new scenic highways in Rocky Mountain National Park, will top your outing to perfection.

ROCKY MOUNTAIN LODGES, Inc.

1730 GLENARM PLACE DENVER, COLORADO

Present Day Credit Conditions Create Many Delinquent Accounts

Your Slow Payers Are Your Competitor's Cash Customers

BUY NOW—PAY LATER

EXCUSES

Every Dollar Added to "Unpaid Accounts" Is a Dollar Taken From "Net Profit"

Why Support The Dead Beats?

There's a Reason for Bad Debts

The Cheapest Service is Never the Best but The Best is Usually the Cheapest

Delay Kills

List Those Slow Accounts Now

The Best Collection Service Available

Exclusively Professional

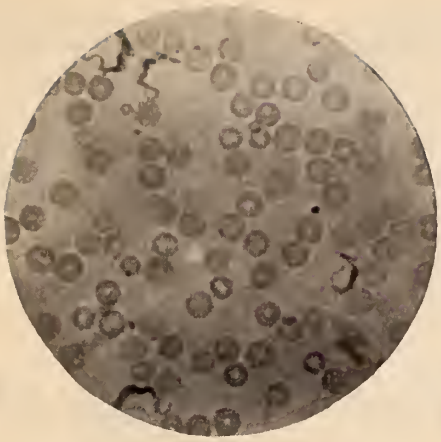
The

American Medical & Dental Association

Credit Men for the Medical and Dental Profession

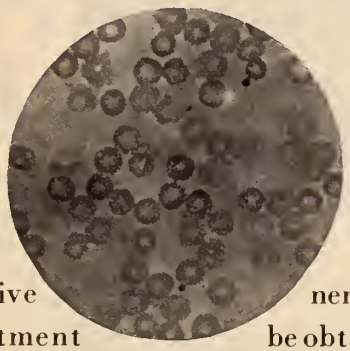
700 CENTRAL SAVINGS BANK BLDG. PHONE TAbor 2331

DENVER, COLORADO



Rat blood infected with trypanosomes (count 106,000 per cubic mm.) just previous to injection of Neoarsphenamine Squibb. X900.

SQUIBB NEOARSPHENAMINE



Blood of cured rat 24 hours after intravenous injection of Neoarsphenamine Squibb. X900. Trypanosomes gone.

provides adequate therapeutic action

THE IMPORTANT objective of Arsphenamine treatment is to obtain adequate therapeutic action in order that the danger of late syphilis may be lessened. If the dissemination of spirochetes and their establishment in inaccessible locations is to be avoided, treatment should be sufficiently prolonged and a highly potent arsphenamine should be employed.

Neoarsphenamine Squibb Improved has a uniformly high therapeutic ratio which closely approximates that of arsphenamine. High spirocheticidal action gives the physician assurance that more permanent therapeutic results will be obtained. Neoarsphenamine Squibb also has a wide margin of safety between toxic and therapeutic doses.

Neoarsphenamine Squibb is marketed in ampuls of 0.15, 0.30, 0.45, 0.60, 0.75 and 0.90 Gm., and in packages containing an ampul of the arsenical together with a 10 cc. ampul of sterile double distilled water Squibb.

For an interesting booklet giving complete information about Neoarsphenamine Squibb Improved, write the Professional Service Dept., 745 Fifth Avenue, New York City.

E·R·SQUIBB & SONS, NEW YORK

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

THE OLD HOMESTEAD BREAD CO.

offers for your approval

The Formula of

KELPIN

Whole Wheat Bread

26 %	Montana W. W. Flour
26 %	Kansas Patent Flour
26 %	Water (filtered)
5 %	Powdered Milk
5 %	Cerelose
2 %	Salt
4 %	Shortening
1½ %	Diastatic Malt
½ %	Kelpin*
2 %	Honey
2 %	Yeast
100 %	

*Our Kelpin Has a Vegetable Iodine content of .11 per cent.

It is rich in iodides

It is rich in food value

It is well baked and sold fresh

One of a series of advertisements in *The Saturday Evening Post,* the *Literary Digest,* and other national magazines, setting forth some of the accomplishments of Medical Science in the diagnosis, treatment, and prevention of disease. *Parke, Davis & Co.*



What your Doctor hears

HAVE YOU ever watched your physician use his stethoscope?

What a simple operation it seems. But what an amazingly complicated and vital operation it really *is!* He is listening to the life-sounds of your body.

Your own ears might detect some of these sounds, but only a doctor's ears, made super-sensitive by years of training and experience, can hear them all and accurately interpret their meaning.

For years your doctor has studied the action and texture of internal organs and tissues. He is so expert in the science of chest-acoustics that he can detect inflammation or any other unusual condition in the bronchial tubes by the delicate shades of musical pitch caused by the passage of the air from the throat to the lungs. He can hear the sounds of moisture in the air-sacs which say, "pneumonia"; the roughness of an inflamed pleura which suggests pleurisy; the defective closing of valves symptomatic of heart disease.

And when he takes your temperature or blood-pressure, when he examines your nose and throat and ears, when his skilful, gentle fingers search for a tender spot in your abdomen —when he does all these things, he is employing scientific methods whose usefulness in revealing your body's secrets has been developed by decades of study and experience. But only the trained eye and ear and hand of your physician can *use* them scientifically.

Your doctor is trained to recognize and cure disease. Make use of his experience and ability. Far too many people suffer needlessly as the result of well-intentioned but unscientific advice of friends and neighbors. When you feel ill, get *professional* advice—call your doctor without undue delay.

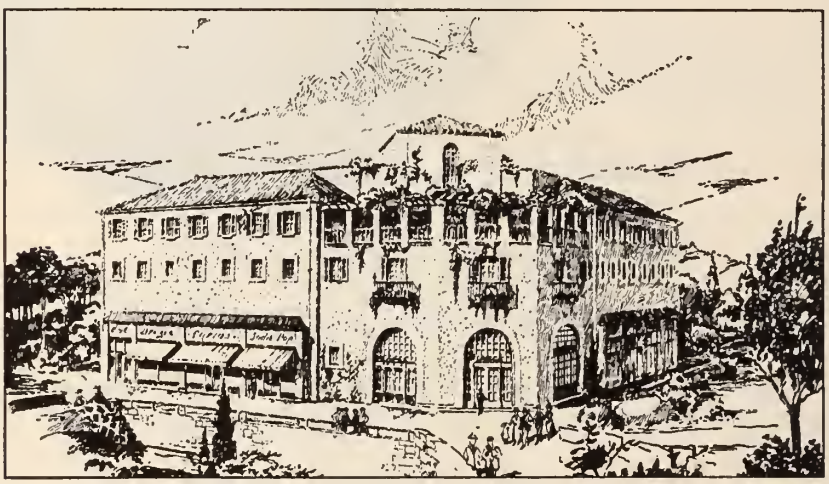
PARKE, DAVIS & COMPANY

The World's Largest Makers of Pharmaceutical and Biological Products

Announcing

OPEN HOUSE WEEK

MANITOU MINERAL SPRING SANITARIUM



AT THE FOOT OF PIKE'S PEAK

HYDRO-THERAPY PHYSICAL THERAPY

Open house June 12th to 19th, inclusive. Inspection invited by visiting physicians.

PAUL M. LENNOX, M.D.
Medical Director

MANITOU,
COLORADO

GREAT must have been the anxiety of Ephraim McDowell when he performed his first ovariotomy at Danville, Kentucky, in 1809. News of the operation had spread about town. Public sentiment was against him. There were threats of violence. Great, too, must have been the apprehension and fear of the patient, Mrs. Crawford, who underwent the ordeal without an anesthetic, sustained by her confidence in a great surgeon.

Present-day patients are spared preoperative anxiety through the use of Pulvules Sodium Amytal (sodium iso-amyl ethyl barbiturate), a distinct addition to the facilities of modern surgery, a boon to the patient, the surgeon, and the anesthetist.

Adapted from an old engraving



PROGRESS THROUGH RESEARCH


UROSCOPY played an important part in the diagnosis of disease in the seventeenth century. Honored as a learned profession, the art of medicine was nevertheless on a par with the pseudo sciences of alchemy and astrology.
Consideration of the epoch-making discoveries of latter days affords startling contrast to medicine of old. Through the practical application of laboratory findings have come disease prevention, sanitation, and specific medication—major factors, all of them, in the progress of civilization.
This is the era of Insulin. Iletin (Insulin, Lilly) was the first Insulin commercially available in the United States.
From the painting, "The Village Doctor," by Teniers
U-20
ILETIN
INSULIN, LILLY
U-40
ILETIN
INSULIN, LILLY
10 cc.
ILETIN
INSULIN, LILLY
U 20
KEEP IN A COOL PLACE
The name Iletin distinguishes the Insulin made by Eli Lilly and Co., under license from the University of Toronto.
AX-154
ELI LILLY & COMPANY
Lilly
INDIANAPOLIS, U. S. A.
10 cc.
ILETIN
INSULIN, LILLY
U 40
KEEP IN A COOL PLACE
The name Iletin distinguishes the Insulin made by Eli Lilly and Co., under license from the University of Toronto.
AX-187
ELI LILLY & COMPANY
Lilly
INDIANAPOLIS, U. S. A.
U-20
ILETIN
INSULIN, L
20 Units in Each
ARY LITERA
LY ON PHYSIC
Pat. Off. Patented
Lilly
D COMPANY, IN
LILLY
PROGRESS THROUGH RESEARCH



The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

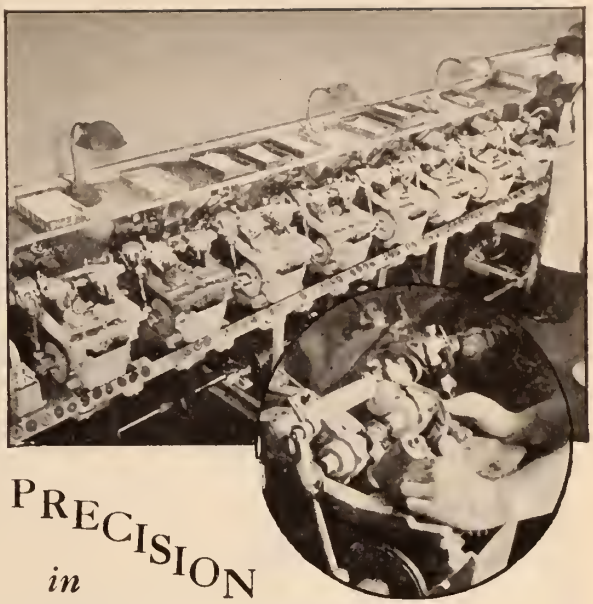
The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

WINDSOR-MEADOW GOLD

MAin 5131



PRECISION *in* LENS EDGING IS ESSENTIAL

This operation, one of the most important in producing lenses that will give your patients the satisfaction they expect, must be performed with care. To assure the accurate interpretation of your ℞, the optical center must be exact. The axis, which is predetermined by edging, must be precise. For appearance, the depth and angle of the pin bevel must be perfect, so that there is no chipping or flaking with a mounting, or bevel visibility with a frame.

Are Your Prescriptions Edged Like This?

In Riggs Modern Prescription Laboratories, master craftsmen, with years of precision training, edge each prescription with exacting care. Modern machinery incorporating every feature that insures precision, is used so that the optical center and axis are accurate. Proper bevel edging, too, is made certain by automatic bevel edgers controlled by skilled operators.

Riggs Precision edging safeguards your ℞.

RIGGS OPTICAL COMPANY

There is a branch conveniently near you to serve you with quality optical products.

Whereas

The physicians of this country evidence an almost unanimous preference for Dextri-Maltose when modifying Protein Milk, as well as cow's milk formulae

Whereas

The cases requiring Protein Milk are difficult to feed, representing sick babies with severe nutritional upsets. Therefore,

Be it resolved

That, in the feeding of healthy babies, as a modifier of cow's milk, the physician's carbohydrate of choice is

MEAD'S

Dextri-Maltose

"DEXTRI-MALTOSE WITH VITAMIN B" IS NOW ALSO AVAILABLE TO PHYSICIANS WHO ARE INTERESTED IN ITS APPETITE-AND-GROWTH-STIMULATING PROPERTIES. PLEASE WRITE FOR SAMPLES TO MEAD JOHNSON & COMPANY, EVANSVILLE, INDIANA, U.S.A., SPECIALISTS IN INFANT DIET MATERIALS.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

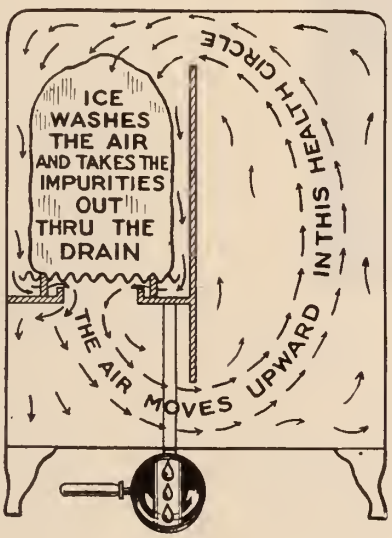
Ask Us Why

"WASHED AIR"

is found only in a

Modern Ice Refrigerator

"Washed Air" is important for proper refrigeration. We will be glad to tell you *why* without any obligation to you. Inquire now!



A new modern ICE Refrigerator is the only refrigerator that safeguards foods with cold air that is constantly cleansed and purified. "Washed Air" circulates in a steady stream through the food chamber. Odors and bacteria cannot accumulate. They are carried away in the air stream . . . deposited on the thin film of water on the block of ICE as water is a great absorbent . . . then flow down the drain and out of the refrigerator. The original flavor and freshness of each food is protected. Temperatures in new modern ICE Refrigerators are low and safe. Our Refrigerators have been scientifically tested and approved by Professor Kayan of Columbia University, Good Housekeeping Institute and the National Association of Ice Industries. Come in and see our display . . . or telephone and our refrigeration man will be glad to call.

When you buy a new modern ICE Refrigerator, its moderate price SAVES YOU MONEY. It saves the price by saving ice. Liberal Allowance on your old ice box. Pay conveniently in divided monthly payments. No interest or carrying charge. Discount for cash.

Denver Ice and Cold Storage Co.

2635 BLAKE ST. PHONE TAbor 1251

"Be Sure It's the DENVER ICE TAbor 1251"

ELI LILLY AND COMPANY

FOUNDED 1876

Makers of Medicinal Products for Use Exclusively Under Professional Direction



MERTHIOLATE

An organic mercurial germicide distinctive for its combined germicidal value and tissue compatibility. Supplied in a variety of convenient forms.

Prompt Attention Given to Physicians' Inquiries

Address Principal Offices and Laboratories, Indianapolis

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: W. H. Crisp, M.D., *Chairman*, C. F. Kemper, M.D., C. S. Bluemel, M.D.

VOL. 29 NUMBER 7 JULY, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

Committee on the Costs of Medical Care

WE FREQUENTLY inspect the work and reports of this committee, but many are not at this time familiar with its origin and purpose. Inasmuch as these columns will frequently allude thereto, we will briefly review this data to better define the meaning of subsequent reports.

The Committee was organized to assist our profession in its desire to deliver adequate scientific medical care to all people at a cost consistent with their respective economic situations. It was organized in 1927 by a group of five men, including Dr. Smith, director of Johns Hopkins Hospital, and Dr. Winslow, professor of Public Health at Yale, and three others interested in medical economics, who contributed to its inception. There are fifty members of the Committee, half of whom are physicians. Sixteen of the doctors are in private practice and are nationally known; they include Barker, Harris, Follansbee, and Woodyatt. Public Health is represented by the Commissioners of Massachusetts and Chicago and the Professors at Columbia, Ann Arbor, and Yale. Among the institutional representatives are the deans of Columbia and Northwestern, the president of the Catholic Hospital Association, and Olin West for the American Medical Association. The group on economics includes the Director of the National Bureau on Economic Research and a University of Chicago professor. The public is represented by officials of the American Telephone and Telegraph Company, the American Federation of Labor, the National Council of Women, and the Chase National Bank.

Thus the Committee is adequately representative of the interests involved. Its findings and recommendations will be anticipated with deep concern. Undoubtedly they will form the basis for future regulations of medical service.

Take the Mystery Out of Medicine

THE WAY is paved for quacks and charlatans when a physician mystifes his patients. So says Dr. E. Starr Judd, of Rochester. He has urged us to take the mystery out of medicine and stop throwing Latin names at our patients. Herein lies progress in the art of medicine to accompany the rapid development of its science.

Dr. Judd has further urged that each physician should, upon each suitable occasion, inform his patients of the latest scientific medical developments, particularly as they pertain to the individual's health and its conservation. Medical facts can be revealed because they are real; quackery will not bear scrutiny because it is fake. Imparting the truth is therefore the greatest weapon against the charlatan.

Plan NOW to attend the State Meeting in Estes Park, September 8, 9, 10. It will be more than worth your while as a scientific treat, as a rendevous with old friends, as a vacation.

A Former Editor Passes On

In the death of George A. Moleen on June 22, Colorado Medicine lost one of its former editors, one who contributed brilliantly to the upbuilding of the journal in its early days, one whose labors for its medical and literary leadership continued unceasingly for a quarter century. Dr. Moleen was the third editor of Colorado Medicine, taking the reins from Dr. James M. Blaine in October, 1906. After resigning as editor in 1909, Dr. Moleen served many terms as a member of the Committee on Publication, a total of thirteen years, retiring as its chairman in September, 1931.

Colorado as Host

TO HAVE had two national tuberculosis societies, the National Tuberculosis Association and the American Sanatorium Association, meet in Colorado this year from June 6 to 9, proved both a treat to the Coloradoan—the host—and a privilege to the guests who gathered here from all corners of the continent, and this was the consensus of opinion as the closing sessions terminated when guests lingered and the hosts regretted partings which had to come only too soon to satisfy them. In spite of expectations to the contrary, the attendance to both meetings was exceptional and vied in representation from all sections and corners of the continent with that of more prosperous times in centers of equal size in population to Denver and Colorado Springs and states like Colorado and the Rocky Mountain Region. Over six hundred registered for the meetings which were held at the University of Colorado School of Medicine at Denver and at the Antlers Hotel in Colorado Springs.

In addition these meetings were enhanced by the coincident Annual Meeting of the Colorado Tuberculosis Association and the birth of a new organization, The Rocky Mountain Conference on Tuberculosis, modeled after the Mississippi Valley Conference, designed to stimulate scientific interest and fraternal cooperation and exchange of information in tuberculosis among the physicians and health workers in the states of Colorado, Utah, Wyoming, New Mexico, Arizona, Texas, Oklahoma, Montana, Idaho, Kansas, and North Dakota. Dr. Charles O. Giese of Colorado Springs, Colorado, was elected the first president, Dr. Leroy Peters, Albuquerque, New Mexico, vice president, and Dr. Arnold Minnig, Denver, Colorado, secretary-treasurer. The sections are to include clinical, pathological, and sociological divisions based upon the plan of the Mississippi Valley Conference which has proved so outstandingly successful in furthering tuberculosis study on a regional basis.

Outstanding among the events of the meeting of the National Tuberculosis Assosiation was the presentation of the Trudeau Medal to a physician well known to Coloradoans—Dr. Esmond R. Long, Professor of Pathology, University of Chicago—by Dr. Henry Sewall of Colorado, chairman of the award committee, consisting also of Drs. E. R. Baldwin, Theobald Smith, and Eugene Opie.

The election of Dr. John H. Peck of Des Moines, Iowa, as the new president of the National Tuberculosis Association to succeed Dr. Alfred Henry, Indianapolis, Indiana, was a tribute to the West. Dr. Fred H. Heise of Saranac Lake was elected president of the American Sanatorium Association.

Other events came in such rapid succession that only history will comprehend their full value. A few, however, were of particular interest to Colorado and Colorado's physicians. In the scientific fields the papers were of the highest order. A review of several years' study to detect pulmonary tuberculosis in classes at Yale University revealed the importance of economical and thorough testing in sifting the evidence for making a diagnosis of tuberculosis. Studies of the blood occupied a conspicuous place in the clinical evaluation of cases. The importance of wholesome occupational and recreational activities was strikingly brought out in explanation of the high tuberculosis incidence in the Indian, Mexican, and Negro

population. Sufficient evidence is now at hand to justify the efforts to correct the economic and social status of these races as is particularly shown in the Negro group where the tuberculosis death rate has been markedly reduced by such efforts. Pathological studies contributed information elucidating such phenomena as virulence, allergy, and the significance of the various morphologic constituents of the tubercle bacillus and presented simplification in the bacteriological diagnosis of tuberculosis such as a simply performed culture method available to all practicing physicians who possess an incubator.

As a special feature of the meeting, the grade of scientific exhibits attained a very high standard and particularly stressed the roentgenologic studies. Of especial interest was the practical demonstration that paper films could be used efficiently in place of celluloid films and at one-third the cost of making roentgenograms of the chest, the paper being especially valuable in roll form for survey purposes and requiring only slight modification in the usual technic.

Viewed in the light of past accomplishment the last fifty years revealed a decrease in mortality from 300 to 67 per hundred thousand population, but so long as tuberculosis still destroys more of our young men and women than any other disease or in fact of all other diseases in that age group, we must consider the needs of the tuberculous as among the first of our community requirements. We dare not reduce our efforts against the disease for fear that the hard earned momentum of the last twenty-five years might soon be lost. H. J. C.

❧ ❧ ❧

Western Branch American Public Health Association

DENVER amply maintained its distinction as a convention city in the entertainment and hospitality extended the members and guests of the American Public Health Association in its third annual assembly, June 9 to 11.

While primarily devoted to the consideration of matters concerned with health and sanitation, this society does not restrict itself to problems of administration alone; it embraces sections on bacteriology and immunology, on public health nursing and health education, and on research in epidemiology.

It constitutes a forum where conflicting views may be harmonized and definite procedures outlined in campaigns against communicable disease. So we find on its muster roll not only those identified officially as health administrators of national repute, but many from the allied professions, such as dentistry, sociology, nursing, various divisions of the Bureau of Animal Industry and, naturally, from such sections of medicine itself as pediatrics, obstetrics, radiology, and hygiene.

The session just concluded will be remembered for several contributions of unusual merit: among these may be noted the papers by Dr. Karl F. Meyer, of San Francisco, on "The Bacteriology of Psittacosis"; by Drs. R. H. Riley and C. H. Halliday, of Baltimore, on "Rickettsial Diseases;" by Lee Bonar, Ph.D., and Alice Dryer, M.A., of Berkeley, on "Studies of the Ringworm Fungi;" and by Dr. A. D. H. Kaplan, of Denver, "The Utilization of Infant Mortality Data in the Appraisal of an Urban Community." The public addresses of the President, Louis I. Dublin, of Dr. M. P. Ravenel, Editor of the Association Journal, and of Dr. Kendall Emerson, Acting Executive Secretary, on the common subject "Public Health in Depression Years," were timely and authoritative.

It was unfortunate, however, that one or two of the delegates seized the opportunity afforded by general discussion of controversial questions to admonish organized medicine on its "approaching doom," and to warn it against evils which happily do not exist. The profession may be depended upon in these trying days to extend full measure of sympathy and support to the indigent sick, and to adjust its business relations with the public in general on lines consistent with the traditions of a guild which has made charity its corner stone. J. W. A.

Getting Ready for Estes Park

OFFICERS and Committees in charge of the 1932 Annual Session are laboring to prepare for Estes Park, the outstanding meeting of a generation. It is not too early to call to all readers' attention some of the elaborate plans that are under way.

Elsewhere in this issue the Executive Secretary and others have something to say concerning plans for the session. The complete program will appear in our next, or August, issue. The editorial privilege of seeing some of the plans and program items even before they are prepared for publication has convinced us that he who fails to go to Estes Park for the full three days, September 8, 9 and 10, will long afterward regret his decision.

The program, the entertainment, the arrangements will be outstanding. The site, superb for vacation or convention—in this case, for both. The expense will be lower than usual, ridiculously low when all that it includes is considered. Plan now to attend. Keep in touch with details through reading all about the meeting in this and subsequent issues.

Cost of Government

WAGE and salary income in business and industry, and investment income, in the United States was 48 per cent less in 1931 than in 1929. In this same period salaries of federal, state, and local government employees increased 14 per cent. Pensions and gratuities paid by the government increased 51 per cent. There has been a notable decrease, also, in the number of people able or willing to pay for medical service.

Though there is little enough that the medical profession may do collectively in a political way, let us at least individually stand forth in our condemnation of such governmental extravagance.

Bring your wife to Estes Park, September 8, 9 and 10. She will enjoy it, too.

Suggest a System for Health Insurance

A TWO-YEAR investigation of the situation of health insurance has just been completed by A. M. Simons and Dr. Nathan Sinai. They conclude that some form of compulsory health insurance is certain to be adopted in this country for the care of the 20 to 30 per cent of the sick who are not receiving adequate medical care. All conditions which led to health insurance laws in leading European countries now prevail in the United States, they state. Such bills are now before the legislatures of several states and are being drafted in others.

Though health insurance is not called a panacea for public health problems, no country wherein it is in force would elect, we understand, to return to the old system. Under the health laws of France, the relation between physician and patient is essentially the same as in private practice. The patient chooses his practitioner who fixes his own fee; the statement is presented to the insurance organization which reimburses the patient with a portion of the amount—usually about 80 per cent. In Great Britain and Germany, where medical and dental service is free, the patient must choose the practitioner from an approved list.

The investigation above mentioned leads to the belief that medical service should be entirely distinct from the administration of cash benefits. Health is but one factor in an economic situation wherein cash benefits are in order. Further observations show that the incomes of physicians and dentists average as high or higher than in private working-class practice before insurance—more work and more pay obtain.

This investigation, sponsored by the American Dental Association and American College of Dentists, may serve as a warning that physicians and dentists of this country should formulate the policies of any insurance system which might be installed in the United States. Otherwise they may be in conflict with such a plan after it has been instituted in spite of them.

POST-PNEUMONIC NON-RESOLUTION AND SYPHILIS

R. H. KAMPMEIER, M.D.
PUEBLO

Syphilis is rarely thought of as a cause of non-resolution in pneumonia. While non-resolution is not a common complication or sequela, in the series studied by Osler at the Johns Hopkins Hospital between 3 and 4 per cent of patients with pneumonia showed delayed resolution. The majority of such cases fortunately recover after a month or so, but some of them develop one of several forms of chronic pulmonary disease, particularly chronic interstitial pneumonia, bronchiectasis, or lung abscess.

If it can be shown that syphilis is a factor in a certain percentage of cases of non-resolution of pneumonia, and if the treatment of the syphilitic process will prevent this non-resolution and with it these serious and often permanent post-pneumonic complications, the importance of searching for evidence of latent syphilis in every case of pneumonia which presents symptoms and signs of non-resolution will be made clear.

Very few references are made to this subject in the literature, and these only in recent years. Syphilis as a factor altering the course of pneumonia is ignored in text-books except in that by Norris and Landis[1], who refer to our studies mentioned below. The few papers upon this subject have dealt, naturally, with small groups of cases.

Head and Seabloom[2] were the first to call attention to the subject in 1919, when they reported three cases of non-resolution after pneumonia in the presence of syphilis. Anti-syphilitic treatment resulted in the clearing of the process. Piersol discussed the relationship of syphilis to non-resolution in 1922[3].

Fitz-Hugh[4] in 1924 reported three cases of non-resolution which cleared up after antisyphilitic treatment. He found that four of fifty consecutive patients with pneumonia admitted to the University of Pennsylvania Hospital had strongly positive Wassermann reactions. Two of these four were included in his report of three cases. Two were not specifically treated, and one of these ran a very stormy case for six weeks. Fitz-Hugh and Anderson[5] published a second report in 1926.

In 1927 the subject was again discussed by Youmans and Kampmeier[6]. This report comprised a series of thirty cases including both living and necropsy cases studied at the University of Michigan Hospital during the preceding five years. The pulmonary lesions included post-pneumonic non-resolution, post-pneumonic lung abscess, bronchiectasis, and chronic fibroid pneumonia. Of the ten patients who were living, one had unresolved pneumonia, five unresolved pneumonia and lung abscess or bronchiectasis, and four lung abscess, bronchiectasis, or both. All had a history of pneumonia antedating the onset of chronic disease. Of these ten patients, three had negative Wassermann tests, but one of these had had a primary sore and had been treated. The other two showed no signs of syphilis. As in the case reported below the presence of a negative Wassermann or Kahn test does not necessarily preclude the presence of syphilis. Of the twenty cases which came to autopsy, six had unquestioned syphilis and four others were possibly syphilitic on the evidence of microscopic examination of the tissues made by A. S. Warthin. Thus in thirty patients with post-pneumonic complications, associated pre-existing syphilis was found in twelve, or 40 per cent. Since the paper was published in 1927, the author has seen two patients at the University of Michigan Hospital with non-resolution and syphilis.

The following case is reported here to further illustrate this relationship between syphilis and pneumonia.

Case Report

F. S., a white male, aged 45, road worker, was first seen March 3, 1931.

Present illness: On March 1, the patient had suddenly become ill with a chill, fever, and pain in the right axillary region. Cough and painful respirations were prominent symptoms. When first seen he had begun to raise bloody, tenacious sputum.

Past history (obtained several days later):

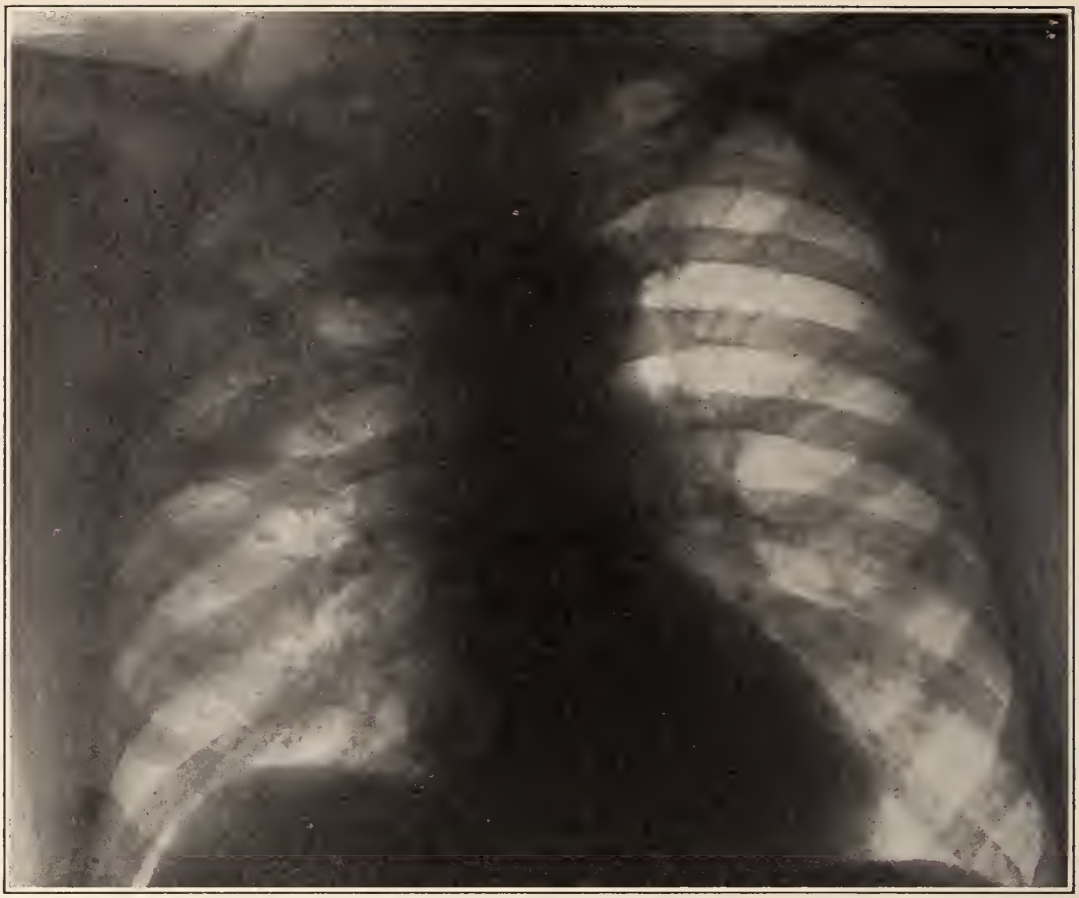


Fig. 1. Plate, made on the eleventh day, showing a shadow believed to be that of non-resolution in the right lung.

The patient denied any serious illness, and the only fact of importance in the history deals with the syphilitic infection. He had had a primary penile sore in 1902, at which time he was treated at Hot Springs, Ark. In 1922, while consulting a physician because of a mild gastro-intestinal complaint, blood was taken for examination and the Wassermann test was reported as four plus. The patient questioned this report and consulted another physician who found the blood four plus on two other occasions. He was treated for eighteen months, and at the end of that time the blood and spinal fluid were reported negative. The wife and one child are in apparent good health.

Examination: Only the significant findings on examination are given. Upon the first visit, the patient was found in bed showing a short, grunting type of respiration. He was perspiring freely. Cyanosis of the face, lips, and nail beds was present. The pupils were found to be contracted and did not react to light. The throat was somewhat injected. The tonsils were small. There was no generalized lymphadenopathy. The heart was found to be negative upon palpation, percussion, and auscultation.

Inspection of the chest revealed limitation of expansion at the right lower portion. Upon palpation, increased tactile fremitus was noted over the right chest in the axilla and middle back. The percussion note varied from dull to flat over the right back, the upper border of the impairment being midway between the inferior angle and the spine of the scapula. The note was flat about the inferior angle of the scapula. The extreme right base of the lung showed only slight impairment. There was also some dullness in the upper right axilla. The breath sounds were tubular over the area of dullness and, though scattered rales could be heard over the greater part of this area,

they were especially prominent over an area the size of the palm of the hand at the region of the angle of the scapula.

The temperature was 103° F., the pulse 120. The blood pressure was 150 systolic and 100 diastolic. On the following day (the fourth day of illness), the white blood cells were 19,500 per cu. mm., with 84 per cent polymorphonuclear neutrophiles, of which sixteen were of the "B" type (Arneth-Schilling). The urine was not abnormal. The sputum was not typed, but upon smear showed many pneumococci and streptococci.

Clinical course: The course of the disease was at no time stormy, and the patient was treated at home. On the sixth day of the illness the temperature was normal at a forenoon visit. The cough persisted, however, and there was constantly present a fair amount of bloody sputum. This showed no tendency to diminish. Upon examination of the chest there was found day after day a persistent area, the size of the palm of the hand, at the angle of the scapula on the right, where dullness, bronchial breathing and rales were present. He was always afebrile on morning visits.

Because of the persistent cough, bloody sputum and physical findings, non-resolution was suspected, and because of the contracted Argyll-Robertson pupils and the history, syphilis was suspected as a cause. The Wassermann and Kahn tests were negative on the tenth day of illness. Roentgenologic stereoscopic plates made on the eleventh day, showed a shadow believed to be that of non-resolution in the right lung (Fig. 1). Five sputum examinations for the tubercle bacillus were negative. In spite of the negative Wassermann and Kahn tests, the patient was given mild antisyphilitic treatment consisting of potassium iodide and mercury protiodide by mouth. This was begun on the eleventh day. By the four-

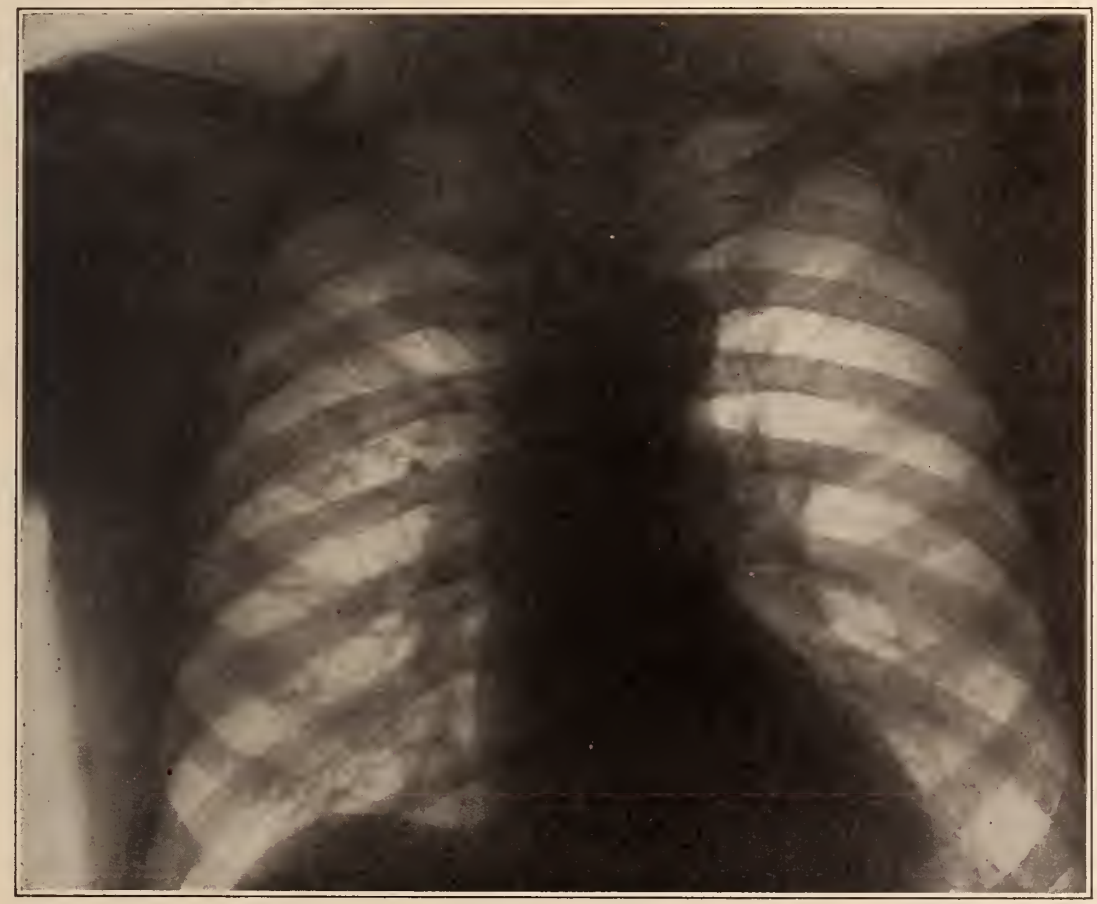


Fig. 2. Plate, taken five weeks after onset of the disease, showing marked clearing of the shadow

teenth day the bloody sputum and cough had decreased, according to the patient's statement. Examination still showed persistent rales and impaired percussion note. On the eighteenth day no more blood appeared in the sputum and the cough was negligible, being present only in the morning upon arising. Rales were still present at the angle of the right scapula. A fluoroscopic examination showed clearing in shadow in the right lung. Examination on the twenty-fifth day revealed slight impairment and very few rales. Fluroscopic examination indicated further clearing.

By April 6, or five weeks after the onset of illness, the patient said he coughed and raised sputum only occasionally. He was back at work. The Wassermann and Kahn tests at this time were both reported as two plus. Roentgenologic plates at this time showed much clearing of the shadow as compared to previous plates (Fig. 2).

Seven weeks after the onset of illness, cough and sputum were entirely absent. He had gained several pounds in weight and was doing heavy manual labor and was feeling well. Examination of the chest revealed only slight impairment of the percussion note at the angle of the scapula. The breath sounds were normal, and rales were absent. The patient was then referred for intensive antisyphilitic treatment.

Discussion: This case as well as those reported in the literature strongly suggest that syphilis is a possible cause of non-resolution and its end results. Too little attention has been given to this possible relationship. It is not intended to imply that syphilis is the important factor in all cases of delayed resolution, but if it is present in as many as 40 per cent of thirty cases of post-pneumonic complications as shown by Youmans and Kampmeier, its presence should be given serious consideration.

The question may arise whether the clearing of the non-resolution in the case reported in this paper was the result of the antisyphilitic treatment, or whether this apparent relationship was a mere coincidence. Having seen this sequence of events in two other such patients at the University of Michigan Hospital, the author feels that it is not justifiable to omit or postpone antisyphilitic treatment in the presence of positive Wassermann and Kahn tests, or in the presence of signs of syphilis with negative specific tests as in the case reported. This is also the conclusion reached by the clinicians mentioned in the fore part of the paper.

Conclusions

In any patient in whom delayed resolution is present following pneumonia, search should be made for the presence of syphilis, and, if present, treatment should be instituted. The possibility of decreasing the incidence of serious post-pneumonic complications makes this imperative.

REFERENCES

[1]Norris, G. W., and Landis, H. R.: Diseases of the Chest. W. B. Saunders Co. 1929. Page 479.

[2]Head, G. D., and Seabloom, J. L.: Arsphenamin in Pneumonia with Delayed Resolution in Syphilitic Soldiers. J. A. M. A., 1919, 73, 1344.

[3]Piersol, G. M.: Unresolved Pneumonia. Pennsylvania Med. J., 1921-1922, 25, 249.

[4]Fitz-Hugh, T., Jr.: Syphilis as an Important Cause of Delayed Resolution in Pneumonia. Med. Clin. North America, 1924, 8, 987.

[5]Fitz-Hugh, T., Jr., and Anderson, R. D.: Syphilis, an Important Cause of Delayed Resolution in Acute Pneumonia, New Jersey Med. Soc. J. 1926, 23, 334.

[6]Youmans, J. B., and Kampmeier, R. H.: Pre-Existing Syphilis as a Cause of Unresolved Pneumonia and a Factor in the Production of Certain Other Post-Pneumonic Complications. Am. J. M. Sc., 1927, 174, 750.

WILL YOU HAVE AN EXHIBIT FOR THE STATE MEETING?

Physicians who wish to present exhibits at the Sixty-second Annual Session at Estes Park in September should **immeditely** communicate with the chairman of the appropriate exhibit committee.

Dr. L. G. Crosby, 142 Metropolitan Building, Denver, is chairman of the Committee on X-Ray Exhibits.

Dr. Maurice Katzman, 402 Republic Building, Denver, is chairman of the Committee on General Scientific Exhibits.

These chairmen probably will have to close their lists on July 15, in order to prepare the program for publication.

INDICATIONS FOR THE TREATMENT OF OBESITY*

ARNOLD MINNIG, M.D.
DENVER

My thesis is that the indications for the treatment of obesity are sufficiently grave, that the haphazard advice given by charlatans, cultists, beauty operators, barbers, faddists and the like should be brought to task. If this paper and like papers point out often enough the dangers of promiscuous prescribing for this disease (for obesity is just as much a disease entity as typhoid fever), it is to be hoped that we may educate the above named gentry.

It would seem that the statistics of life insurance companies would be enough argument against the dangers of heterogeneous advice. When the life of the obese is shortened by from one-fifth to one-half, it would appear that we had something tangible about which to warn our well-meaning pseudo-healers.

Childhood Obesity

I should like to emphasize the importance of beginning the treatment of obesity in childhood. Indeed, we must begin earlier than this. We must start treating the infant in utero. We know that the overweight child at birth is due to an undersecreting thyroid of the mother. Consequently the mother's basal metabolism should be investigated in every instance. Then we must treat the mother.

If this precaution has not been taken, the next step is to treat the infant. At this time, over-weight is the only indication for treatment. That it is highly important to begin treating the obese in childhood is revealed by the fact that ten per cent of the children who are overweight become feeble-minded. As the child grows older a much more elaborate symptom complex comes to our aid.

Cretinism

The most serious consideration in the treatment of childhood obesity is hypothyroidism. The reason for this is that we are unable to undo what has already been done, but it is possible by substitution therapy to prevent the child becoming worse—a possible imbecile. It is, therefore, most important to recognize these stigmata at the earliest possible time. There can scarcely be any practitioner unfamiliar with the clinical syndrome of cretinism. The slow mental and physical development, drowsiness, tendency to obesity, thick, coarse wrinkled skin, open mouth, enlarged tongue, stupid look, scanty lusterless hair, sunken eyes, plump hands with short fingers, undescended testicles, pot belly, umbilical hernia, obstinate constipation, late ossification of the epiphyses, delayed dentition, and, of course, the low metabolic rate, are characteristic.

Childhood Hypopituitarism

In the preadolescent period, the hypopituitary form of obesity is practically the only one to be considered. This develops at any time after eight years of age. There is an exception to this: occasionally after a severe intercurrent infection, like scarlet fever, a childhood myxedema may ensue. The hypopituitary is contrasted markedly from the cretin. The pituitary child is bright, teeth are well developed, skin is moist, hair luxuriant, ossification centers normal—but he is obese. X-ray pictures of the sella should be taken, but these only show abnormalities in four per cent of the cases. There may be limitations in the field of vision. Diabetes insipidus may be present. Much can be done for this type of obesity with the aid of diet and administration of pituitary extracts, preferably the whole gland.

Adult Obesity

In childhood obesity the history is important, but in the adult it is even more so. What might be termed the physiological epochs, namely puberty, marriage, pregnancy, and the menopause, are the periods at which obesity commonly begins in women. Overweight is ten times as frequent in women as in men.

The physical examination must include special reference to the distribution of the fat, study of the facies, the hair, nails, teeth,

*Read before the Sixty-first Annual Session of the Colorado State Medical Society at Colorado Springs, Sept. 17, 1931.

skin, sex organs, mentality, measurements, and ossification time. X-ray pictures of the epiphyses, sella turcica, and thymus may be necessary. Sugar tolerance, sodium chloride retention, basal metabolism, and blood chemistry studies are essential. The question must be decided as to whether we deal with an exogenous obesity caused by overeating and inactivity or with an endogenous obesity.

If overfeeding were the sole cause, obesity would be much more common. We all eat in excess of our requirements, especially at dinners and banquets. There is no doubt that alcohol causes a large percentage of the exogenous type. Muscular inactivity represents the other source of this form of obesity. The endocrines represent by far the greatest offenders in the etiology of obesity. Here the pituitary and thyroid seem most often at fault. Next are the gonads and the pancreas, very rarely the adrenal, pineal, and thymus. In addition, there is a rare cerebral type. In my experience, pancreatic obesity has been much more common than most writers have reported. A very common form of obesity is the mixed type, and here the thyroid and pituitary are most commonly associated. After carefully considering the history and weighing the physical signs, in order to intelligently treat our patient, we must arrive at a diagnosis. This is not always easy, especially in the mixed forms, and most of them are mixed. Each type has its own characteristic symptom complex.

Complications

The object of this paper is twofold. First, I should like to point out that it is highly important to begin the treatment of obesity in childhood. Second, the complications of being overweight are numerous and serious—so serious that the complications require infinitely more consideration than the primary disease. Zarday, in an investigation of 160 obese who did not have a primary cardiac insufficiency, showed that 90 per cent had impairment of the circulation as revealed by pulse rate, arterial and venous blood pressure, vital capacity, and the electrocardiogram. Romberg and Proger reported similar results. Myers has shown that the vital capacity was decreased in a group of college students 10 per cent or more underweight or overweight.

The results of the above writers stimulated me to a similar investigation. I have studied my cases in the past several years in reference to the pulse and arterial pressure before and after exercise, and the vital capacity, especially the latter. I have found the vital capacity a very easy but delicate test for determining cardiac efficiency. My findings are simply a confirmation of the above.

There are many other complications of obesity, because it causes a vicious circle. We are especially familiar with diabetes, hypertension, cholecystitis, etc., also such symptoms as dyspnea, varicosities, broken arches and eczema. One is therefore impressed by the fact that the treatment of obesity is not only that of a reduction cure but the treatment of the complications, and that in nine out of ten cases there is cardiac embarrassment. In my series were found many actual organic heart lesions. The glaring and overwhelming danger, then, of treating a cardiac case with exercise, an unbalanced diet, and above all, with thyroid extract, appalls the medical man. Surely, the irrational way in which the laity (and even the physician) treats the obese must account for some of the staggering mortality rates. One of my confreres who has charge of a girl's boarding school claims a year never passes but what some girl, in the attempt to become sylph-like, suffers from acidosis.

Treatment

As long as we do not know any more about the metabolic processes, we cannot approach the ideal treatment of obesity. Treatment is still based on empiric grounds. The best that can be said in the etiology is that the heat regulating center and the center for regulation of weight are closely related and are located together in the hypothalamus region behind the tuber cinereum. This region is near the pituitary body. It seems an established fact that the body weight regulation only fails if the center fails. If the

ovaries of ten women are removed, only four or five will develop obesity.

The more overfeeding and lessened muscular exercise have to do in the etiology of obesity, the greater the chance of success in the therapy. The underlying principle for all reduction cures is simply the maintenance of nitrogen equilibrium with the restriction of calories lower than the needs of the body. The body fat is then called upon to make up the deficiency. The chief content of surplus fat tissue is fat and water. In every reduction cure, there should be restriction of the salt and water intake. I have found one of my best aids is the production of diuresis. In addition to digitalis, salyrgan stands out preeminently. In the analysis of every case of obesity, a basal metabolism must first be taken. Where there is an hypothyroidism, thyroid extract is indicated. The administration of ovarian extracts is advantageous in many menopausal obesities. At this period there is a marked endocrine upset. It must be remembered that menopausal obesity starts in some years before the actual climacteric. Here we have several glands which show signs of exhaustion. These are the gonads, the pituitary, and the pancreas, in the order named. This type of obesity is most obstinate in spite of unheard of deprivations in diet. It has been a great aid to me to remember in this connection that pituitary obesity is abdominal, while gonadal obesity is distributed in the mammary, hips, and gluteal regions. In treating menopausal obesity, I have found the hypodermic injections of ovarian extract more effective than giving the tablets orally.

In all reduction cures, it is best first to try the diet alone. If this is not successful we may add the indicated drugs. No drug therapy is effectual without a reduction in diet. Conversely, it would seem that all obesity is exogenous. I do not believe this is true. In this reduction in diet one must always predict a circulatory disturbance sooner or later. Injections of sterile milk (such as Aolan) may also be helpful; this must never be given alone, but in conjunction with thyroid extract. It must be further remembered that in circulatory cases the administration of thyroid extract is practically suicidal. Every treatment must be individual. The greatest cause of failure in obesity cures is lack of perseverance.

DISCUSSION

W. B. Hardesty, Berthoud: I have been very much interested in Dr. Minnig's paper because I find that the problem of treating these obese patients is quite a vexing one. Most of the obesities that we have to deal with are not only a symptom, but a disease, and these patients have tried dieting without results.

Myxedema is frequently mistaken for forms of obesity, and our patients wonder why thyroid extract is not a cureall.

I wish Dr. Minnig could have dwelt longer on the importance of the family history, for I believe it has a definite bearing upon the secretory disease present in these obese patients. This familial line of ductless gland dyscrasias is a very important diagnostic point. It has long been recognized by the laity as the cause of hereditary traits and tendencies, but very little importance has been given to it by the clinician as a definite cause for inherited endocrinous dyscrasias. The delicate balance between the endocrine glands predisposes them to be easily upset. Severe toxic conditions of the body often cause an imbalance of these glands and the pituitary being the easiest upset during early life suffers the most. I agree with Dr. Minnig that most of the obesity the clinician deals with is due to a hypopituitary condition during some physiological epoch. During the first years of life the thyroid is at fault, next the pituitary comes to the rescue, then it is both; later in life the thyroid flares up again. Every time I hear a reference to cholecystitis associated with obesity, I am more desirous of a satisfactory explanation.

W. F. Singer, Pueblo: I am very much interested in the subject of obesity, simply because so little attention is given to the study of it. Whenever I hear about a quack perpetrating all these managements by starvation and that sort of thing, I say, "You are doing the same thing I started years before the quack ever heard of it." I want to tell you I know of no method by which you can do more for the patient than by proper diet. I want to emphasize something the doctor has spoken about, exogenous obesity—what I call food pressure. You are taking an organism and pushing food against it. That is exactly what happens, and without any kind of rest or relief at all, there is that constant pressure. If that constant dietary pressure is continued, the organism is destroyed. In the life of the savage, they at times went without food for days and days. Man can live thirty days easily without food and carry on some type of work. Why is that? Because the organism has been trained since biologic history began to do that very thing. I want to impress the use of thyroid extract. It should be given very cautiously—one-tenth of a grain a day. When you begin with half a grain a day or a grain a day, you are hitting the person with a club. I want to speak of two types of obesity that have been of great interest to me, the so-called hyperplasmatic obesity, characterized by an increase in the muscular fatty tissues, high red count, sometimes as high as six million. The individual develops, with the increase of weight, different types of venous congestion. These people also present tubular and

hyaline casts and albumin in the urine and definite anemia—sometimes to a marked degree. I have at the present time a hyperplasmatic type, a woman who has over six million cells. She feels as though she were going to fall; this is due to venous congestion. I have reduced many of my patients over 100 pounds, and I have the people in Pueblo to show. A word about hypertension: When anyone says that the normal blood pressure for an individual is 100 plus, I would like to put my foot right on that and say it is absolutely ridiculous. You have pathology and disease there or there would not be this hypertension. In regard to the diet: When you are going to reduce a patient, you are burning up fat to do it. That individual must have carbohydrates in some form in order to burn the fat. He must take a certain amount of protein for protection. It is quite simple. I give them some kind of fruit juice, vegetable juice, honey, or sugar—preferring honey because it works better. I give them some kind of sea food, as raw oysters or canned salmon, for example, then milk.

Paul J. Connor, Denver: It is obvious that any man who reads a paper before a society cannot go into it as he would want to. The anterior pituitary lobe stimulates the thyroid gland and also stimulates menstruation and the function of the ovaries. As we know, the thyroid gland controls the metabolic disturbance or the metabolic rate. The anterior lobe takes care of the water balance. We often see a woman very much overweight with pigmented areas upon her face and skin. We are taught to believe that the adrenal glands control pigmentation, but experiments prove that the posterior lobe controls the pigment. We find that the pituitary gland is greatly enlarged, sometimes two or three times its normal size during pregnancy. A great many of these patients develop this obesity after their first child because of the hypoactive posterior lobe—it does not come back to its proper size and function. The doctor mentioned cholecystitis in obesity. Every one of us has a theory; I have one that nobody can disprove, and I am going to say it. We find a great deal of cholecystitis, and in a careful history one can find some illness ten, twenty-five, or thirty years back. It appears to me since 1917, '18 and '19, when we had the "flu" epidemic, that we are now having more gall bladder disease than was ever known in the history of the world. We also know of the old adage: "fair, fat, and forty." The age of forty is a time when gall bladder disease has developed and we are able to diagnose it. We know the posterior pituitary controls fat metabolism; it controls also the action of the smooth muscle, intestines, gall bladder, uterus and tubes. Following severe infections in children, as typhoid fever, influenza, scarlet fever, etc., we occasionally find them fat in two or three years. My impression is that the posterior lobe of the pituitary gland is definitely involved in the procedure. As Dr. Minnig has pointed out, most of these cases follow some acute illness. There is a hyperposterior pituitary insufficiency, and consequently constipation with gas, stasis, and then infection. It is my impression that stasis of the gall bladder and stasis of the intestinal tract give rise to secondary gall bladder infection.

Dr. Minnig (closing): Obesity is a big subject. On account of the many phases of the subject, Dr. Singer and I would like to see a symposium presented at some future meeting. In such a short paper I necessarily had to skip many important features. Besides I wanted to show some lantern slides. I was glad to have Dr. Hardesty emphasize the importance of taking a special history. It is not only necessary to go into the patient's history, but also that of his ancestors. On account of the limitation of time I made no reference to the dietary treatment, which requires a paper by itself. My favorite diet in obesity is a modification of the patient's usual diet. Of course, in such a short paper I was unable to go into a most important phase of obesity, which is the differential diagnosis of the various types. I believe these different types are fairly clear cut today and supported by autopsy findings.

"COWL FRACTURES"

J. D. CAREY, M.D.
FORT COLLINS

A great many diseases, fractures, and operations have been named after men who first wrote concerning them. It is not my idea to add to this list by reporting a small number of fractures which have been sustained all in the same manner, but to report a particular fracture which is occurring daily but which I have never seen reported. Neither do I wish to name this fracture after any particular individual, but to me and my associates is called the "Cowl Fracture" because it is caused by the forceful contact of the knee with the cowl of the automobile.

I have seen six cases of this type of fracture, four of which I am reporting, all sustained in the same manner, that is, by the impact of the knee against the cowl due to the sudden stopping of the automobile, causing the occupant of the front seat to be thrown forcefully forward. These fractures were all accompanied by more or less severe cuts to the face and head—also, in case of the driver being the victim, by contusions and bruises to the chest.

In the cases I have seen, all fractures involved the right knee—fractures of the upper tibia, linear and transverse in type, some extending into the joint. In none of them has there been any perceptible displacement or crepitus. At the site of the fracture there is usually a slight abrasion of the skin, and

in three of the cases the patient was able to walk; the other three were carried from the place of accident because of other injuries. The patient complains of a little pain which too often is considered due to the bruised condition. Often x-rays are not taken. Attention is directed to the cuts and abrasions about the face and chest. In three of these cases x-rays of the knee were not taken until several days after the accident and then because of the persistent pain. These fractures were of the linear type.

Case 1: A physician was driving a car which struck a moving box car and was thrown from the driver's seat. He received cuts about the face and severe bruises of the chest. There was a small cut on the anterior aspect of the right knee. A hematoma developed and was opened. He was allowed up on crutches but continued to have pain until six weeks later. An x-ray was taken which showed a linear fracture six inches in length.

Case 2: A lady was thrown from the driver's seat and received a long cut across the forehead and bruises of the chest, also a small puncture wound at the right knee to which no attention was paid at the time of the accident other than to cleanse the wound. Three days later an x-ray showed a linear fracture.

Case 3: A female patient of a local physician was thrown from the driver's seat, receiving cuts and abrasions about the face and severe bruising of the chest. There was no abrasion over the knee. An x-ray showed a transverse and a linear fracture running into the joint. There was no displacement of bones and no crepitus was obtainable.

Case 4: A man was thrown from the driver's seat, receiving no injury to the face. He left the scene of accident on foot and continued to be on his feet for three days suffering pain in his right knee. There was a small amount of swelling but no loss of motion. An x-ray revealed a linear fracture.

It is my opinion that in all accidents where there is any complaint of pain about the knee it should immediately be x-rayed, and that our attention should not be diverted from it by the absence of local manifestation. It is also my opinion that many cases of this type, because of no deformity or crepitus, have been overlooked.

EVAPORATED MILK IN INFANT FEEDING*

HERMANN B. STEIN, M.D.
DENVER

Ideas on infant feeding have changed greatly during the past decade, and all the changes have been for the better. One of the greatest problems which confronts the general practitioner is that of providing a substitute for mothers' milk, which for various reasons, the newborn cannot obtain.

The basis of practically all of the substitutes is cows' milk, and most infants do well on them; yet no one of them has a perfect record and will serve one hundred per cent of the time. During the various processes which the milk undergoes, such as changing the fat, altering the protein, or substituting another carbohydrate, there is an added cost which must be borne by the purchaser. One of the best forms in which cows' milk can be given the infant is that of evaporated milk such as is purchasable in any grocery store. Evaporated milk is whole cows' milk which has approximately sixty per cent of the water content removed, and which has been sterilized in hermetically sealed tin cans.

Investigators have found that infants do excellently on evaporated milk modified to suit the individual requirement. During the summer months it is difficult to be certain of the purity of the milk because changes from bacterial action occur rapidly. Undoubtedly, this bacterial contamination is a great source of the diarrheas which so increase the infant morbidity and mortality. The purity of evaporated milk is one of its greatest assets. It is interesting to note that the sterilizing process also causes changes in the curd and protein which render them

*From the Department of Pediatrics, University of Colorado School of Medicine, Denver, Colorado.

easier to digest. The curd which results from action of the gastric juices is a fine, flocculent one which allows intimate access of the digestive enzyme and insures the necessary changes.

The fat globule also is exceedingly small and compares most favorably in size with the fat of mothers' milk. This small, evenly distributed fat globule also allows the lipase to act intimately and results in complete fat digestion.

The mineral content of evaporated milk is the same as that in whole cows' milk and is utilized in the same manner. None of the essential vitamins present is changed except vitamin C, which is destroyed by heat. However, even fresh milk is notoriously lacking in this vitamin, and the lack is usually compensated with orange or tomato juice.

The preparation of evaporated milk for infant feeding is very easy and simple; it may be carried out by the most ignorant mother with the fewest of utensils. This is valuable to the physician who is always cognizant of his responsibility when he puts a baby on a formula.

It is only necessary to remember that the milk is in concentrated form and needs to have approximately an equal amount of previously boiled water added to it to make it the same composition as cows' milk. The carbohydrate used again adds to the simplicity of preparation. This is usually regular table sugar or corn syrup, either the light or the dark, depending upon the necessity for laxative powers which the dark variety carries. Some men prefer to use the dextrin-maltose preparations which are excellent but more expensive.

Where concentrated feedings are required it is possible to make the lactic acid modifications or even to use less water than a regular modified formula calls for.

It is rarely necessary to use more evaporated milk than that found in the large size can which, when enough water to make up to a quart has been added, supplies the caloric value of approximately one quart of whole milk. When the infant has progressed to the stage where one quart of milk is insufficient to meet his dietary requirements, he is capable of handling properly prepared cereals and vegetables.

During the present period of economic stress, the cost of a can of evaporated milk is much lower than a quart of fresh milk. In traveling, where facilities are lacking for keeping the formula in a cold place, it is possible to prepare each feeding as required by using either the small (6 ounce) can and discarding the remainder, or by washing off the top of the large can with soap and water and wiping it with alcohol, then puncturing it with a previously sterilized nail or ice pick. After the required amount of milk is poured out, the top should be cleansed and carefully covered and the can protected from excessive heat until it is needed for the next feeding. The top should be cleansed and covered after each use until the contents are exhausted.

Summary

In infant feeding, evaporated milk offers a salutary substitute for mothers' milk because it is:

1. Easy to prepare with simple equipment.
2. Constant in food content.
3. Comparable to sterilized whole milk.
4. Universally obtainable and inexpensive.
5. Valuable in traveling and in vicinities where fresh cows' milk supply is not properly supervised.

PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Colorado considered itself most fortunate in acting as host to two outstanding public health meetings during the month of June. The National Tuberculosis Association met in annual convention in Colorado Springs June 6, 7, 8 and 9, and the Western Branch of the American Public Health Association held its third annual meeting on June 9, 10 and 11, in Denver.

Education or Catastrophe

Dr. Walter H. Brown, Professor of Hygiene and Physical Education of Stanford

University, in his talk before the Western Branch of the American Public Health Association, gave an interpretation of what H. G. Wells meant when he said "The world must choose between education and catastrophe." According to Professor Brown our stupendous blunder of identifying education with the schooling of youth can not continue if our civilization is to survive.

It is not the education of the child that can save the world from destruction. It is the education of adults who must be released from their outworn customs, prejudices, and obsolete ideas. We must devise ways to educate and re-educate adults.

It is surprising how large a number of children develop health ideals coupled with health knowledge which surpasses that of adults. The weakest link in our health chain is in the adult generation. Any successful, effective plan of health education must (1) be based upon scientific facts; (2) contain skillful provision for arousing and maintaining interest; and (3) secure voluntary willing participation.

It will be necessary to find ways to overcome the inertia or opposition of the average individual who claims his ancient right to be ignorant, careless, thoughtless, and prejudiced in matters pertaining to health. Arouse his interest, and give him something substantial to feed upon. Skillful adaptation of all our best educational methods to the attitudes and psychology peculiar to adults is needed. The individual will have to educate himself but our health literature must be adapted to the needs and curiosity of the individual. Adults can be interested in health education if we are ready to furnish the leadership and organize a program that will compete successfully for the interest of the individual.

Extra Effort Necessary to Maintain Present Health Standards in Economic Depression

A note of warning against reduction of health budgets was sounded by Dr. Louis I. Dublin, president of the American Public Health Association. According to Dr. Dublin, after three years of unemployment there is no evidence of increased sickness. In fact, there is evidence of improvement in the following instances:

On the Pacific coast and in the Rocky Mountain Region, the mortality rates reached new low points in 1931.

During the first four months of 1932 in the western part of the country the death rate declined 1.6 per cent below figures for the same period last year.

There has been continued decline in mortality from diseases of childhood and childbirth.

This he intimated is due to the fact that budgets have not been cut up to this time. Any reduction will endanger the present standards. The keynote of his message is a plea to all workers to fight relentlessly against the tendency in many places to reduce health appropriations. He effectively visualized the crisis which will arise should an epidemic of disease complicate the already serious condition of the country.

The cost of the present program is amazingly low, $1.00 per capita being the maximum in most cities, although $2.50 to $3.00 per capita is necessary to cover cost of an efficient program.

Simple Precautions and Knowledge Will Assist Doctors Fight Against Parrot Fever

Psittacosis is endemic at present on the Pacific Coast with thrushes and canaries, as well as with birds of the parrot family. Because this fact is not commonly known, these birds have been an unnoticed source of disease germs. Anyone who has a sick bird should get it out of the house immediately and notify the health department. Many sick birds which cannot pass government inspection are smuggled into the country and provide constant and new source of contamination. Sixty-five per cent of all cases are fatal with human beings.

Voluntary and Official Agencies Must Cooperate

Dr. E. L. Bishop, State Commissioner of Health in Nashville, Tennessee, stated in his paper that initiative for health work rests with the people rather than with the government, since we have an existing autocracy and not a democracy. Agencies of government established for the purpose of protection and promotion of public health must come into being as a result of public demand and public necessity. It is within the power

of far-seeing voluntary agencies to aggravate the public demand. One of the chief functions of the voluntary agency is to undertake health "excursions" and prove their worth.

A. P. H. A. Meeting in Washington, D. C. October 24-27, 1932

Programs of unusual scientific value are being planned for the various sessions of the annual meeting of the American Public Health Association in Washington, October 24-27. Dr. Lewis I. Dublin, president of the Association, has announced as his subject for the opening session "The Effects of the Economic Depression on the Health of the Community." A special session on current problems called "The Public Health Ten Star Final" is attracting much attention. —From Western Branch, A. P. H. A. News Letter, May 5, 1932.

"Control of Communicable Diseases" has just been issued in revised form. It is a convenient pocket-sized handbook priced at 30 cents, with all material brought up to date by the White House Conference Committee on the Control of Communicable Diseases. Copies can be secured from the A. P. H. A., 450 Seventh Avenue, New York City.

Education and Philanthropy

"Nothing has happened, nothing will happen, nothing can happen that will justify a great and powerful community like the one in which we live, in curtailing its educational and philanthropic activities and interests" was the statement made by Dr. Abraham Flexner in a recent address in New York City.

"Greed and folly have brought about a world crisis in which there is starvation, despite a superabundance of food, and poverty despite a superabundance of goods. None the less, it is a better world today than at any time in history. For the moment, however, the question arises as to whether society is able to carry on the humane programs upon which it has embarked in education and in philanthropy." . . . . "We are passing through a storm" said Dr. Flexner. "No one can expect to escape the flashing of the lightning and the roar of the thunder, but storms pass." . . . . "There are ways in which we can adapt ourselves to this severe, though passing, crisis. It is the part of wisdom to do so, but there are things to which we must hold uncomprisingly—activities, which must be kept at their maximum efficiency, no matter how great the sacrifice required. Among these I place first and foremost those activities that concern education and philanthropy, for upon education and philanthropy the very worthwhileness of life and civilization depends."—From Better Times, May 2, 1932.

Prenatal Care in Relation to Mortality

In the report of the committee to study and report on the Problem of Infant and Maternal Mortality, presented to the Child Hygiene Section of the American Public Health Association at its annual meeting at Montreal in September, 1931, the committee points out that conclusions based upon the figures of organizations providing prenatal care as to the influence of the prenatal care given on maternal and neonatal mortality should be interpreted with caution. Comparisons between the mortality rate of a special group and the rate for the country as a whole or for a certain section of a city are not justified unless a number of modifying factors are taken into consideration. In the first place approximately one-third of the maternal mortality is made up of the deaths associated with the first six months of pregnancy, whereas usually less than one-fourth of the cases on which the organization's report were registered before the fifth or sixth month. Consideration should also be given to racial differences and differences in the age distribution in the groups compared as well as to differences in the kind of attendance at birth and place of delivery.

The committee states that it does not wish its criticisms to be interpreted as a conviction that prenatal care has no great value in general maternal and infant hygiene; its purpose is to suggest the importance of a more competent and more accurate method of reporting the results of such care.—Child-Welfare News Summary, U. S. Children's Bureau, May 7, 1932.

Child Hygiene

"The Health Officer's Viewpoint of Child Hygiene" by Taliafero Clark, Assistant Surgeon-General of the U. S. Public Health Service, is the subject of an article in the February 26, 1932, number of Public Health Reports.

Dr. Clark's first paragraph may well be taken as a child hygiene program for a community: "Child hygiene, beginning one generation ahead of disease, treating with the cause of bad health rather than with the effects, offers the most certain way of assuring a healthy adult generation. Child hygiene, therefore, is a great entering wedge for the entire public health program; and, as a means of assuring a generation free from disease, it occupies a peculiar position in the public health field. The problems of child health and protection are manifold, they stand in intimate relationship with every phase of public health administration, but fortunately, and quite naturally, they may be considered from the standpoint of varying periods and relationships of child life, such as prenatal and maternal care, the hygiene of early infancy, health protection and health promotion of preschool children, supervision of the health of the school child, protection of children from the health hazards of industry and other special groups, and from numerous other angles and approaches. There will be considered here only the problems of prenatal and maternal care, the neonatal and early infancy periods.

Various sections of the program are then taken up in detail. Dr. Clark points out that no constructive system of infant hygiene can be established in the absence of accurate knowledge of how many babies there are, where they are, and how healthy or sick they are. Important links in this chain are prompt birth registration, routine reporting of cases of communicable disease, and accurate records of death. He states that, armed with this information, the health officer is in the best possible position to investigate the causes of unusual infant mortality, control threatened epidemics of communicable diseases, and promote other measures for the protection of infant health and life.

Special Magazine Number

The June, 1932, special Colorado number of the "Journal of the Outdoor Life" published by the National Tuberculosis Association has just reached our desk. The number is attractive and everyone interested in tuberculosis work in Colorado will wish a copy. The number includes articles by the following local people: Dr. Henry Sewall, Dr. Gerald B. Webb, Dr. James J. Waring, Dr. Horace G. Wetherill, Dr. Lorenz W. Frank, Mr. Charles W. Henderson, Dr. C. F. Gardner, Dr. H. J. Corper, Dr. I. D. Bronfin, Miss Helen Burke, Secretary of the Colorado Tuberculosis Association, and Miss Jessie I. Lummis, Executive Secretary of the Denver Tuberculosis Society.

Preschool Child's Posture

An interesting article on the posture of the preschool child by Dr. Winthrop M. Phelps is found in the May, 1932, number of "Public Health Nursing"—the journal of the N. O. P. H. N.

Intensive Program Against Diphtheria Reduces Number of Cases and Deaths From This Disease

A program of diphtheria immunization in Los Angeles County has proved effective according to Dr. Anna E. Rude. Work was begun in 1923 when the incidence rate was 349.8 per 100,000 population and the death rate 15.9. That year toxin anti-toxin was offered to all school children under ten years of age whose parents gave consent. In 1930 the picture showed that the incidence rate was 61.9 and the death rate 2.1. The reduction was particularly noteworthy in that it occurred in an unstabilized and rapidly increasing population. The following year showed a slight increase, which redoubled efforts on the part of health workers. Four thousand letters were sent to physicians asking cooperation in this campaign. The County Board of Supervisors purchased toxoid to be furnished free to doctors, thus making immunization available at moderate cost or free if necessary. These measures proved gratifying in that the incident and death rates were again reduced. (Detroit has the highest per cent of immunized children in the United States.)

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

EDITOR: J. J. WARING, M.D.

Whether it be due to more leisure for reading, or to the improved facilities in the Library or to a growing appreciation of what the Library has to offer, the fact remains that recently Library "business" has been growing by leaps and bounds. Comparative figures for the first five months of 1931 and 1932 are as follows:

	1931	1932	Increase
Loans	2658	3708	1050
Visitors	3650	4489	839

The official publication of the Carnegie Institute commenting on the increased business in all public libraries throughout the country says impartial observers agree that "with the exception of those agencies giving actual relief, the public libraries of the United States are perhaps our most important institutions during times of business depression." This is not a little due to the growing realization of the victim of enforced idleness whether doctor or mechanic that he now has the leisure to read that book that he had always intended to read and the time to delve into certain subjects, which had always intrigued him but which he had never been able to go into exhaustively. Among the many books one might read at this time with profit, a little volume published by the University of Chicago Press will be found to offer much food for thought to doctors and dentists alike. "The Way of Health Insurance," by Mr. A. M. Simons, a member of the research staff of the committee on the study of dental practice of the American Dental Association, and Dr. Nathan Sinai, associate professor of Public Health at the University of Michigan, represents the results of a two-year study of the social, economic, and political conditions that led to the enactment of health insurance laws in all leading European countries and may lead to similar legislation in this country.

Two passages are worth quoting here:

"Their report," says Dr. Herbert E. Phillips, chairman of the Committee on the Study of Dental Practice, "will serve as a warning to the physicians and dentists of this country, that if they do not take a hand in formulating the policies of any insurance system that may be installed in the United States, the professions may find themselves in conflict with its practices when it is too late."

"In France, after the insurance law had passed in the Chamber of Deputies, the physicians and dentists united, tardily, in an attack on it, held up its enforcement for two years, and virtually rewrote it. Under the French health laws, the relation between practitioner and patient is virtually the same as in private practice. The patient has free choice of practitioner, the practitioner fixes his own fee, and the insured presents the practitioner's bill to the insurance organization and is reimbursed with a percentage of it—usually 80 per cent."

Apropos this subject, read in the May 19, 1932, number of the New England Journal of Medicine an excellent article by David Cheever of Boston, "Doctor, Medical Society, Layman and State," from which this paragraph is quoted:

"How then can we doctors influence legislation? First, and by all means foremost, by practicing medicine as a liberal altruistic scientific profession, scorning to reduce it to the level of a commercial merchandising of service, pursuing the science, perfecting the art and giving to each patient the best of which we are capable either in person or by invoking the special knowledge of others, this will do more than anything else to create a powerful mass of favorable public opinion; secondly, by the legislators who, as friends, and as patients, have reason to trust the wisdom of our judgment and the purity of our motives; thirdly, by helping to formulate, through constant attendance at and discussion in medical meetings, an enlightened and wise outlook on our economic problems and public relations, and finally, by supporting our chosen spokesman before the legislature by attendance and well-chosen discussions at Committee hearings."

BOOK REVIEWS

Health Protection for the Preeschool Child. A National Survey of the Use of Preventive Medical and Dental Service for Children Under Six. Report to the Section on Medical Service. George Truman Palmer, Dr. P. H. Chairman, Subcommittee on Statistics. Mahew Derryberry, Research Assistant. Philip Van Ingen, M.D., Chairman, Committee on Medical Care for Children. White House Conference on Child Health and Protection. London: The Century Co., New York. 269 pages. Price $2.50.

"Health Protection for the Pre-school Child" is a report of a survey, prepared for the White House Conference on Child Health and Protection, to ascertain to what extent four generally recognized health measures—a health examination, a dental examination, vaccination against small pox, and immunization against diphtheria—were being made use of throughout the United States, the investigation being limited to children under six years of age.

The report, a book of 275 pages, covers in detail the objects and scope of the survey, the plan and personnel of the organization, the localities selected for the survey and the method of their selection, the findings shown by the investigation, and the administrative details. The type, arrangement of material, and mechanical execution are most excellent; and the book is carefully and fully indexed. The clarity and brevity of the text is deserving of special mention, while the charts and tables, affording almost every possible tabulation and comparison of the findings, are unusually easy to read and comprehend.

Physicians, dentists, and health agencies will be interested to ascertain, which can be done in a very few minutes, just how their own or other communities rank in the use of any or all of the four measures included in the survey.

According to the survey, Denver, in comparison with 156 cities of 50,000 or more population, ranks thirty-ninth, with 57 per cent of the children under six having had health examinations, and 16 per cent of the children having had dental examinations; sixty-fourth, with 16 per cent having been vaccinated against small pox; and one hundred and twelfth, with 8 per cent having had immunization against diphtheria. Denver's composite rank, based on the composite rank in the four health measures, is forty-ninth.

In the rural districts of Colorado the report shows that 47 per cent have had health examinations, 20 per cent dental examinations, 11 per cent have been vaccinated against small pox, and 4 per cent have been immunized against diphtheria.

HENRY F. HOFFMAN, D.D.S.

Female Sex Hormonology. By William P. Graves, A.B., M.D., F.A.C.S., Professor of Gynecology at Harvard Medical School; Surgeon-in-Chief to the Free Hospital for Women and to the Parkway Hospital, Brookline, Massachusetts. 131 pages, with illustrations. Philadelphia and London: W. B. Saunders Company, 1931. Cloth, $3.50.

Female Sex Hormonology has advanced with such rapidity during the last several years that an invoice of our present knowledge of it is desirable. Dr. W. P. Graves, the author, has not been a discoverer in this field. He has been all along an eager witness of its development and proposes now to be its historian. The story he tells is alluring. It shows how one discovery rests upon another; how some apparently trifling observation has made way for actual revelation Noting the peculiar character of a vaginal smear in an animal in estruation gave speed and accuracy to experiment. If a philosopher were writing a book on scientific method he might illustrate it completely from Graves' Female Sex Hormonology. It is worth reading for that reason if for no other. It is not a book for the over-zealous therapeutist. His day has not arrived, though there seem to be some streaks of light in yonder eastern horizon if one stands on tiptoe.

C. S. ELDER.

Simplified Diabetic Management. By Joseph T. Beardwood, Jr., A.B., M.D., F.A.C.P. Chief of Diabetic Clinic and Associate Visiting Physician Presbyterian Hospital in Philadelphia; Physician in Chief to the Department of Metabolic Diseases, Abington Memorial Hospital; Associate in Cardiology, Graduate School of Medicine, University of Pennsylvania. Herbert T. Kelly, M.D., A.A.C.P., Associate in Diabetic Clinic, Presbyterian Hospital in Philadelphia; Associate in Cardiology, Graduate School of Medicine University of Pennsylvania and in the Philadelphia General Hospital. Diets prepared with the collaboration of Elsie M. Watt, A.B., formerly Dietitian Diabetic Clinic Presbyterian Hospital in Philadelphia. Illustrated. Philadelphia, London, Montreal: J. B. Lippincott Company. 185 pages.

The authors have offered another manual for the guidance of diabetic patients. It contains standard instructions. It differs from other manuals in that it presents the "Line-ration scheme"; i. e., it groups diabetic foods into groups A. B. and C., after the fashion of Christian and O'Hara's in the treatment of nephritis. The suggested menus for diabetic patients suffering from some other disease such as peptic ulcer, nephritis, or tuberculosis ought to be of some value.

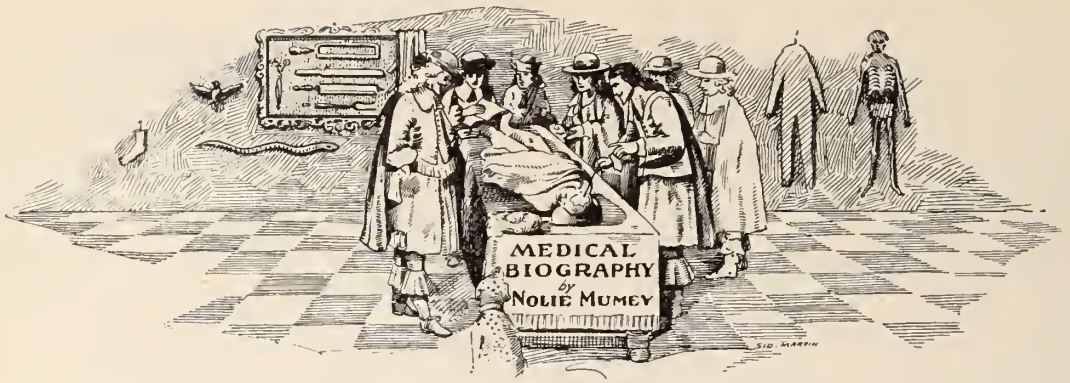
C. F. KEMPER.

Bedside Interpretation of Laboratory Findings. By Michael G. Wohl, M.D., Associate Professor of Experimental Medicine, Temple University Medical School; Chief of Metabolic Clinic, Temple University Hospital, and Chief of the First Medical Diagnostic Clinic, Mt. Sinai Hospital, Philadelphia, Pennsylvania. There is an introduction by Joseph McFarland, M.D., Sc.D., Professor of Pathology, University of Pennsylvania. Illustrated. St. Louis: The C. V. Mosby Company, 1931. 308 pages. Price $6.00.

In this work no attempt is made to present in detail the various laboratory procedures, but the basic principles involved are presented in a concise manner and sufficient detail is furnished to permit this book being used as a guide in the interpretation of the results of clinical laboratory investigation. In general, the author has omitted tests of debatable clinical value.

In the correlation of clinical and laboratory evidence, this book will be found to be useful to the practitioner of medicine.

CLOUGH T. BURNETT,



SILAS WEIR MITCHELL

The great-grandfather of Silas Weir Mitchell, John Mitchell of Ayrshire, was a Collector of Excise at Dumfries, and a friend of Robert Burns, the poet. The grandfather Alexander Mitchell, emigrated from Scotland to what is now West Virginia, and at Shepherdstown, Virginia, John Kearsley Mitchell, the father of Silas Weir Mitchell, was born May 12, 1798. He was a physician and studied medicine under Nathaniel Chapman, later graduating from the Medical Department of the University of Pennsylvania in 1819. John Kearsley Mitchell was the sixth physician in the family in two generations. He made four voyages to China in the capacity of ship surgeon. During his spare time he compiled a dictionary of quotations using as a basis for his study, Johnson's Poets. After having made his first voyage he became engaged to Sarah Matilda Henry, the daughter of Alexander Henry, a prosperous merchant, who was not well pleased with the engagement because Mitchell was a young practitioner and without means.

They were married in 1822, and after three subsequent voyages to China and the East Indies as a ship surgeon, he located in Philadelphia where he became a prominent physician. He occupied the chair of the Practice of Medicine in Jefferson College from 1841 until his death in 1858.

His literary contributions include: "Saint Helena, a Poem by a Yankee," 1839; and, "On the Wisdom, Goodness, and Power of God, as Illustrated in the Properties of Water", 1834. In the field of medicine he contributed some modern ideas on immunity and the germ theory.

The son, Silas Weir Mitchell, was born at 119 South Fifth Street, Philadelphia, February 15, 1829, being the third of nine children. He was named Silas Weir after a prominent Philadelphian, who was a friend of his father's and a brother-in-law of his mother's. Silas Weir first attended grammar school in Philadelphia and later the John Ferris Academy. From the age of fifteen to the age of eighteen he studied at the University of Pennsylvania as a member of the class which was graduated in 1848. On account of ill health he left school at the end of his junior year. It was due to his father's care and influence that he was able to overcome a physical weakness and early handicap, and through him he was given a good foundation for medical training. As he afterwards wrote of him: "My father was the best physician I ever knew."

Weir Mitchell's medical course was completed at Jefferson Medical College in 1850, at the age of twenty-one. He possessed an alternating personality; we see him in the role of a scientist searching for the truth, the physician of note, the great nerve specialist, the distinguished novelist, and the poet of tender feeling. In stature he was tall, slender, and slightly bowed, standing six feet in height and weighing about 180 pounds. He was well muscled, graceful, and had an easy effective gait, with a dignified carriage. He had penetrating gray eyes, thick wavy hair always parted in the middle. A Van Dyke beard added distinction to his well-groomed appearance.

(To Be Continued)



The Stanley Hotel

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

Let's Go to Estes Next September!

MUCH planning, considerable work, many committee meetings and some running back and forth between Denver, Fort Collins, and Estes Park, culminated in June in the crystallization of a program for the Sixty-second Annual Session.

Only the filling in of a few minor details remains before the program is ready to publish. It will appear in the next issue of Colorado Medicine. Be sure to read every word of it next month.

The writer, being a layman, will not attempt to evaluate the scientific part of the program. Physicians who have seen the tentative line-up have complimented the Committee on Scientific Work by stating their belief that it is the best program in years.

It is proper, however, to talk about other arrangements for the meeting, to say that those in charge are genuinely enthusiastic. In order that there may be some coherence, these remarks will be segregated into discussions of separate items.

Time of the Meeting

As has been mentioned before, the meeting is arranged this year for the week end, instead of the middle of the week. This will better suit the members who must leave offices unattended, or who have long distances to travel. The general meeting opens at 9:00 a. m. Thursday, September 8 (the Thursday immediately following Labor Day). The first House of Delegates meeting will be held at 8:00 p. m. Wednesday, September 7. The meeting will continue three full days, adjourning about 5:00 p. m. Saturday. The time thus makes it easy for those who wish to do so to stay Saturday night and make a complete week end of it in the Rocky Mountain National Park.

The Hotels

The Stanley Hotel will be general headquarters for all activities of the Session. This outstanding location offers three main buildings which will accommodate everything except the over-flow which we hope for and expect. When room reservations exceed the Stanley capacity, we will have the Lewiston Hotel, about a half mile distant from the Stanley. The Lewiston is equally attractive, under the same management, and will offer identical accommodations to those at the Stanley. All meetings and the annual dance will be held in the Stanley Casino building. All exhibits, general scientific, x-ray, and commercial, will be placed in the large public rooms of the Stanley Manor. In the Manor also are a large number of the sleeping rooms. The main hotel building will house the majority of those attending the meeting, and here the presidential reception and annual banquet will be held. Registration booths for members, guests, and Auxiliary will be in the main building, and much of the Auxiliary activity will be held here, although some may be conducted at the Lewiston.

In June an informal gathering of the committee chairmen and others charged with arrangements for the Session was held at the Stanley, when details concerning the hotel accommodations were worked out. Mr. Roe Emery, president of the hotel company, promised your representatives that to all effects and purposes the Colorado State Medical Society will own the properties for that important week end. Whatever we want is ours for the asking.

Rates and Reservations

Rates at the hotels will be strictly on the American Plan. The rate per person is $6.00 per day, without bath, or $7.00 per day, with bath. This rate per person covers every room, and while all rooms are attractive, the especially choice rooms will go to those who make earliest reservations. It should be remembered that this rate per day is all-inclusive—it includes all meals, even the Society's Annual Banquet; it includes

all dances, card parties, and special entertainment. The price of the Annual Banquet to any who do not stay at the Stanley or Lewiston hotels during the meeting will be $2.50, as in the past.

Reservations may, and should, be made now. They may be made, if preferred, through the Executive Office of the State Medical Society, 658 Metropolitan Building, Denver. The Executive Secretary is in constant touch with the hotel management and will be glad to see that such reservations are made accurately. In this connection, it should be noted that the Stanley Hotel, like most resort hotels, is made up almost entirely of double rooms. Most of the rooms have twin beds. Many of the rooms are en suite, adjoining rooms having connecting baths. It will be a great help in keeping the convention group together if rooms can be filled properly to capacity. It is therefore urged that all who find it possible reserve their rooms in groups of two or four persons. In any case, make reservations early.



The Stanley Dining Room



One of the Large Bedrooms

Recreation

No member of the Society should need to be reminded that Estes Park, with the Rocky Mountain National Park adjoining and almost surrounding it, offers vacation opportunities unsurpassed. Fine automobile roads, including the new Trail Ridge Road (to be opened August 1), offer a multitude of thrilling and beautiful drives. Trails for horseback or hiking trips are famous.

The nine-hole golf course, owned by the Stanley Hotel, will be free to our members, and the Estes Park Country Club will charge our members only the moderate green fee for use of its eighteen-hole course. The Committee on Arrangements, together with the enthusiastic golfers of the Society, is arranging a tournament, as usual. However, there will be no definite half-day set aside for the golf tournament, since the Committee on Scientific Work voted that this stopping of the program solely for the benefit of the golfers was unfair to many others. Instead, related subjects on the scientific program will be grouped together by mornings and afternoons, so that golfers may easily choose a morning or afternoon when the program is devoted to a specialty not their own, the playing of the tournament thus spreading over two days.

There are many fishing streams and lakes close to the hotels. Our members may dance every night of the meeting if they choose, to the strains of a nationally known dance orchestra which will be at our services throughout the meeting. These are only a few of the recreational advantages.

The Exhibits

Exhibits, x-ray, general scientific, and commercial, will be up to standard in every way, perhaps above. As noted above, all exhibits will be placed in the Stanley Manor. The hotel manage-



Long's Peak, Seen across the Stanley Hotel Grounds



The Lewiston Hotel, close to the Stanley and ideal for our over-flow

ment is leaving nothing to be desired in the way of arrangements and equipment for the exhibits. The Committee on Scientific work, consisting of Drs. C. S. Bluemel, chairman; A. J. Markley, W. A. Kickland and F. B. Stephenson, ex-officio, has named a sub-committee in charge of each major exhibition. Dr. Maurice Katzman, chairman, Denver; Dr. E. D. Downing, Woodmen, and Dr. Royal H. Finney, Pueblo, compose the committee in charge of general scientific exhibits. Dr. L. G. Crosby, chairman, Denver; Dr. John S. Bouslog, Denver, and Dr. George A. Unfug, Pueblo, make up the committee in charge of x-ray exhibits. Members wishing to offer something for either exhibition should get in touch immediately with the nearest member of the appropriate committee. The Committee on Arrangements, composed of Dr. Lowell Little, chairman, Fort Collins; Dr. W. B. Hardesty, Berthoud; William P. Gasser, Loveland, and Roy F. Wiest, Estes Park, will see to it that entertainment features are equal in every way to the general program and the ideal location.



The Stanley Lobby

Additional Information

Space does not permit going into more detail concerning the meeting and arrangements at this time. The staff of the Executive Office of the Society and any member of the concerned committees will be glad to give members additional information at any time. More will be published in the August and September issues. Members especially should read every word of the program next month. If that is done, it will be unnecessary to urge doctors to attend.

Will You Exhibit at the Meeting?

Physicians who wish to present exhibits at the Sixty-second Annual Session at Estes Park in September should **immediately** communicate with the chairman of the appropriate exhibit committee.

Dr. L. G. Crosby, 142 Metropolitan Building, Denver, is chairman of the Committee on X-Ray Exhibits.

Dr. Maurice Katzman, 402 Republic Building, Denver, is chairman of the Committee on General Scientific Exhibits.

These chairmen probably will have to close their lists on July 15, in order to prepare the program for publication in the August issue of Colorado Medicine. If you wish to exhibit, write, telephone, or see the proper chairman **at once.**

Must We Have a Loss in Memberhip?

MANY MEMBERS of the Society feel it is impossible to increase membership in a difficult financial year like 1932. Many think it only natural that the Society must show a loss. This will be true if the leaders of county and district societies allow themselves to drift along with the crowd which believes that the depression is all-encompassing, all-powerful and unconquerable.

The records of our twenty-five county and district societies prove that there need be no loss, that there may be a gain. We have ten societies that have renewed for 1932 every 1931 member. These societies are sufficiently varied in geography, population, and conditions of practice that other societies, less active, can not logically blame their slow renewals on conditions peculiar to the locality. Again, the fact that ten out of twenty-five societies show 100 per cent membership records should preclude blaming the condition of the other fifteen on general economic conditions. There may be one or two exceptions to these rather strong statements. There cannot well be fifteen.

On June 10, when this was written, there were fifty-six delinquent members of the Colorado State Medical Society, members under suspension for non-payment of dues. Is this a sign of the depression? Is this peculiar to 1932? Any who might think so should look back over the records of the Society, through as many years as they wish. On June 10 this year the number of delin-

quents was only twelve higher than on the same date last year. On any given date in the year chosen for comparison, one notes that the number of delinquents is strikingly the same, be it 1928 or 1932.

In other words, dues delinquencies might be called the principal chronic disease affecting not alone our Society, but almost any organization. In our own organization, ten constituents have found and are using the specific cure. The other fifteen should.

Records show that non-members do not need to be told of the advantages of membership, yet members themselves need to be told and told and re-told. The years 1931 and 1932 have seen generous increases in the number of new members. These years have also seen an increase in the number of rejected applications for membership. This means simply that non-members are becoming increasingly aware of the advantages and privileges of the Society, one might almost say the necessity of membership. But older members unfortunately forget that the Society is responsible for many services they use almost daily. They forget the source of these privileges and some of them lapse their memberships, only to discover a year or two later that they have discarded a valuable possession.

It is interesting to speculate on the result should the fifty-six present delinquents be reinstated by September 1, the anniversary of the Society's fiscal year. Could this result be obtained, the Society would break all existing membership records, for on June 10 we had 1,050 paid members and the highest number ever obtained on a September 1 was 1,104.

It is not the purpose of this message to suggest remedies—the remedies are known to the president and secretary of every constituent society; only the application is needed. It is its purpose to call the attention of every active member to a chronic situation which has existed for years, a situation which too many members right now are blaming on the much-maligned depression. Active members are literally shouldering more than their share of the profession's burden because they have done their part in dues payments while those who have not are in most cases reaping equal benefits from the work of organized medicine. Active members should therefore stir their local officers and stir themselves to see that the fifty-six shoulder their part of the load. It is a small enough load for the individual, but in the aggregate is a big burden.

Members have a right to know the condition of the various constituent societies, to know where the organization is strongest in renewals of members. Therefore in conclusion is the alphabetical list of the societies with the number of members under suspension for non-payment of dues in each:

Arapahoe, 1; Boulder, 4; Chaffee, 0; Crowley, 0; Delta, 2; Denver, 20; El Paso, 6; Fremont, 1; Garfield, 0; Huerfano, 0; Kit Carson, 0; Lake, 0; Larimer, 2; Las Animas, 1; Mesa, 1; Montrose, 0; Morgan, 0; Northeast, 2; Northwestern, 0; Otero, 4; Prowers, 1; Pueblo, 3; San Juan, 4; San Luis Valley, 4; Weld, 0.

AMERICAN BOARD FOR OPHTHALMIC EXAMINATIONS

The American Board for Ophthalmic Examinations will hold an examination in Montreal on Monday, September 19, 1932, at the time of the meeting of the American Academy of Ophthalmology and Oto-Laryngology.

Necessary applications for this examination can be procured from the Secretary, Dr. William H. Wilder, 122 South Michigan Avenue, and should be sent to him at least sixty days before the date of the examination.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Medical society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

* * *

BOULDER COUNTY

The annual social meeting of the Boulder County Medical Society was held Thursday, June 9, at the Country Club in Boulder. A golf tournament in charge of Dr. O. M. Gilbert was played in the afternoon, after which a dinner was served. The program consisted of an interesting talk and motion pictures by Prof. and Mrs. T. D. A. Cockerall on "Travels in Africa." Dr. Willis J. Evans of Longmont was elected to membership.

M. L. JOHNSON, Secretary.

* * *

LARIMER COUNTY

The regular monthly meeting of the Larimer County Medical Society was held on Wednesday, June 1, at Fort Collins. Following the reading and approval of the minutes of the previous meeting, Doctor Weist of Estes Park gave a report on activities preparatory for the State Society Meeting in September. Dr. E. L. Harvey of Denver delivered a paper on "Lower Cervical Caesarean Section." Dr. Harvey's paper received considerable discussion and comment by the membership. Following the scientific program Dr. W. A. Kickland entertained the membership with four reels of motion pictures taken during his three months' trip in Europe. Our Executive Secretary, Harvey T. Sethman, again made use of his standing invitation and agreeably surprised us with his presence at the meeting.

C. E. HONSTEIN, Secretary.

* * *

OTERO COUNTY

Doctors Franklin C. Cassidy, Benjamin F. Jackson and Ralph P. Jones of Fort Lyon were the speakers at the regular meeting of the Otero

County Medical Society held June 9 at the Harvey House in La Junta. Doctors Jackson and Jones presented a synopsis of several papers read at the American Medical Association Meeting in New Orleans. Doctor Jones also gave a resume of the recent meeting in Dallas, Texas. Dr. Cassidy talked on "Carcinoma of the Gastro-intestinal Tract."

CHARLES E. MORSE, Secretary.

* * *

WELD COUNTY

Dr. G. M. Blinckensderfer of Denver was the principal speaker at the regular meeting of the Weld County Medical Society held June 6 at the Greeley Hospital. Dr. Blickensderfer spoke on "Acquired Heart Disease in Children."

TRACY D. PEPPERS, Secretary.

COLORADO OTOLARYNGOLOGICAL SOCIETY
June 4, 1932

The annual meeting usually held in May took place in June at which time the following officers for the ensuing year were elected: President, Dr. Harry L. Whitaker; Secretary-Treasurer, Dr. Rex L. Murphy. Case presentations were made at an afternoon meeting at the Colorado General Hospital followed by a dinner at the Shirley-Savoy Hotel and discussion of case reports.

Dr. H. I. Laff presented a case of mastoiditis in a young girl, twice operated, and having a very pneumatic mastoid, in which a probable diagnosis of petrositis had been made. The possibility of osteomyelitis of the temporal bone was suggested. Discussed by Drs. Spencer, Carmody, Levy, Darrow, and K. G. Cooper.

Dr. O. B. McGillicudy presented a case of otitis media in a child following acute upper respiratory infection. Aural discharge had ceased after tonsillectomy only to reappear one week later; at this time a large aural polyp was noted and removed. Discharge had continued with recurrent polypi and infection of the mastoid. Discussed by Drs. Hickey, Rusk, Peirce, C. E. Cooper and Baum.

Dr. E. B. Swerdfeger presented an elderly male adult with abductor paresis of the vocal cords which had not been explained on an organic basis. Lues with a central lesion was suggested as a possible cause and it was felt that emergency tracheotomy might become necessary. Discussed by Drs. Darrow, Laff, Rusk, and Levy.

Dr. McGillicudy presented a young woman with bilateral chronic otitis media in whom modified radical operation had been performed on the right ear with marked decrease of discharge. The left ear discharged intermittently to a slight degree. The present chief complaints were right aural pain and dizziness. The cold caloric tests showed normal reactionary vertigo but no nystagmus on stimulating the right side; pharyngeal reflex was practically absent; there was marked corneal anesthesia and generalized right hemi-anesthesia present. Diagnosis of hysteria was made on the findings plus the comment that the patient was quite insistent upon further hospital and surgical reatment. Discussed by Dr. Carmody.

Dr. H. L. Hickey presented a male, aged 51, exhibiting the rather rare Mikulicz syndrome with bilateral painless swelling of parotid and submaxillary glands and questionable involvement of lacrimal glands together with extreme xerostomia; the resultant dryness of mucous membranes of the mouth and throat extended from the lips to the subglottic space. In addition the patient had chronic hypertrophic arthritis and suppurative disease of both antra as a probable etiologic factor. Differential diagnosis was discussed and some of the pertinent literature reviewed. Discussed by Drs. Ringle, Carmody, Spencer, and Whitaker.

Dr. C. H. Darrow presented a 64 year old male complaining of hoarseness of four months duration which he claimed had followed inhalation of oiled sand. Examination revealed a fixed right vocal cord with a tumor mass attached to the right cord and extending downward and toward the anterior commissure of the larynx; a "goose-bill" epiglottis prevented ready examination by the indirect method, and the patient was to be further examined and treated by direct laryngoscopic means. Probable clinical diagnosis at this time was squamous cell carcinoma, and surgical attack was recommended. Dr. Carmody suggested total laryngectomy as a method of choice. The case was further discussed by Drs. Spencer and Baum.

Dr. H. I. Laff presented a case of dysphagia with drooling of saliva and marked swelling of the posterior two-thirds of the tongue. The patient, a middle aged male adult, had suffered with similar attacks less severe on previous occasions. Slight purulent material had been evacuated spontaneously. In diagnosis the possibilities of glossitis, lingual abscess, and actinomycosis were considered. Discussed by Drs. Spencer, Carmody, Swerdfeger, C. E. Cooper, and Peirce.

Dr. Laff also presented a boy, previously shown, to exhibit the immediate post-operative result in a plastic operation for reconstruction of the columella of the nose. Further problems of the case as growth takes place were discussed.

Dr. J. J. Pattee presented an interesting case report with photographs of bilateral sarcoma of the mastoid, an extremely rare condition as shown by the very limited number of reports in available literature. The patient was nine months old and was first seen with red bulging tympanic membranes both of which were incised, after which a bloody scant discharge ensued; enlargement of cervical and axillary glands was present. In a few days an extensive petechial rash appeared about the ears and scalp associated with rapidly increasing post-auricular swelling; these masses could be readily displaced toward the interior of the skull. Mastoid operation revealed an irregular cauliflower-like mass with underlying destruction of the cortex and inner table of the skull. Microscopic diagnosis was mixed cell sarcoma. X-ray treatment gave temporary relief, but death occurred from profound toxemia about eight months after onset of the disease. Discussed by Drs. Carmody and Earnest.

Dr. F. O. Kettlekamp reported the case of a female aged 44 with chronic tonsillar infection and arthritis for whom tonsillectomy had been performed under local anesthesia. Delayed post-operative hemorrhage was controlled with slight difficulty, and the patient had received morphine on two occasions. In a few hours stertorous breathing developed, and the patient exhibited symptoms suggesting morphine poisoning; she was treated with strong coffee and intravenous saline. After thirty-six hours she roused and was partially cooperative; at the end of forty-eight hours she showed definite mental confusion which continued for about six weeks with eventual return to normal. The condition had been variously diagnosed as novocain poisoning, morphine poisoning and post-operative psychosis. Discussed by Drs. C. E. Cooper, Ringle, Carmody, McGillicudy, Peirce, and Whitaker.

HAROLD L. HICKEY, M.D.,
Reporter.

Obituary

George Arnold Moleen

Dr. Moleen, for a generation a leader in the fields of neuropsychiatry and medical literature, died June 22 at his Denver home from aortic and mitral regurgitation with hypertension.

It is unfortunate that the all-too-brief story of a friend's life must be written so soon after he is gone. These curt statistics may carry but little of real importance, and afterward many things will be remembered that should have been told in order that those unfortunate enough not to have know him might better evaluate his contributions to his profession.



GEORGE A. MOLEEN, M.D.
Editor, Colorado Medicine, 1906-1909

Dr. Moleen was born November 16, 1876, in East Saint Louis, Ill. Early in life he came to Denver, where he received his preliminary education and planned to study pharmacy. His first degree in pharmacy was granted by the University of Denver, and in 1896 the Philadelphia College of Pharmacy conferred on him the honor of a Phar. D. degree. Though already a leader in that profession, he decided on the broader field of medicine, and in 1900 was graduated from the Gross Medical College of Denver. During his medical school years he was already interesting himself in neurology, teaching the subject at the University of Denver, at the same time acting as steward of the Colorado Hospital Corps.

Not long after his graduation he became an instructor in neurology at the University of Colorado School of Medicine, soon being advanced to the full professorship, a position he held until his death. Studies in the field of neuropsychiatry several times took him on trips to visit the leaders of the specialty in Europe. Though to others he was a teacher, in his own mind he was always a pupil.

Dr. Moleen filled many high positions in the organized medical profession. He was elected to membership in the Medical Society of the City and County of Denver in 1902, and was a member of the County and State Societies continuously. He was a Fellow of the American Medical Association. He had been president of the Medical Society of the City and County of Denver, and of the Denver Clinical and Pathological Society. He was a charter member and former president of the Central Neuropsychiatric Association, one of the founders and a former president of the Colorado Neurological Society, and held membership in the American Psychiatric Association, the Association for Research in Nervous and Mental Diseases, and the Colorado Association for Mental Hygiene.

The Colorado Psychopathic Hospital in Denver perhaps can be called Dr. Moleen's memorial. He was the moving spirit in its creation, the one who conceived the idea, who first presented it to the medical profession, and who led the profession in the many political and legislative battles which finally brought about the establishment, building, and financing of the institution.

In addition to his interests in teaching, in practice, and in organization and research work, Dr. Moleen contributed frequently to current medical literature. He accepted the editorship of Colorado Medicine in October, 1906, as its third editor, less than three years after its founding, and was instrumental in building up the journal toward the high place he felt it should hold among current medical periodicals. Although he felt that he must give up the editorship three years later, his interest in the progress of Colorado Medicine continued until his death. Many times he was elected to the Committee on Publication, through which he continued to aid in directing the policies of the publication. He served as chairman of the committee in 1914, 1921, 1924, and 1931.

Dr. Moleen is survived by his widow, a son, George, Jr., and a niece, Mrs. Mary Wooley Mechling, of Scarsdale, N. Y., to all of whom the Denver and Colorado medical profession extend their sincere sympathies.

Frost Craft Buchtel

Dr. Buchtel, for many years a prominent member of the profession in Colorado, died at his home in Denver May 30 from rheumatic heart disease. He suffered a number of years but pursued an active practice up to within a year of his death.

Dr. Buchtel was a son of the late Henry A. Buchtel, former governor of Colorado and chancellor of the University of Denver. He was born in Greencastle, Ind., August 4, 1875, and obtained his preliminary education near his original home. He attended DePauw University and later Columbia University, preparing for a career in medicine. While a student at Columbia, his father was appointed chancellor of the University of Denver and the family moved West, Dr. Buchtel completing the final year of his medical course at the old Denver College of Medicine. He was graduated in 1901. For a few years he practiced in Utah, later in Monte Vista, and in 1908 settled permanently in Denver.

He was elected a member of the Medical So-

ciety of the City and County of Denver in 1908, and from that time was continously a member of the Colorado State Medical Society and a Fellow of the American Medical Association. He was also active in the work of the Denver Clinical and Pathological Society and the Denver Medical Club. Dr. Buchtel was for twenty years associate professor of surgery, first at the old Denver and Gross School of Medicine and later at the University of Colorado School of Medicine. He retired from this work four years ago because of ill health. He was known as a teacher of outstanding popularity and in his lectures often drew on a knowledge of surgical history excelled by few in the country.

During his professional life he won and retained not only the respect of his colleagues but an amazing loyalty among his patients. Handicapped as he was by a heart lesion from which he suffered from youth, he nevertheless achieved a preeminence in surgery attained by few. Outside the profession he will be remembered longer for his humanitarianism than for his professional abilities.

Besides his widow, Dr. Buchtel is survived by his mother, Mrs. Henry Buchtel of Pasadena, Calif.; a daughter, Mrs. George K. Hayden; three sons, Dr. Henry A. Buchtel, William and John Buchtel; and two sisters, Mrs. William Lennox of Boston and Miss Mary Buchtel of Pasadena. With them the profession mourns a great loss.

William W. Keen

1837-1932

A Tribute: Master surgeon, illustrious and revered in achievement, scholar, teacher, and friend. We salute!

WOMAN'S AUXILIARY

When a book review is desired on the programs of Auxiliary meetings it is gratifying to note what wholesome and fine books are found particularly fitting for the purpose: The Medicine Man in Texas, Magnificent Obsession, Dr. Serocold, Victim and Victor, The Microbe Hunters. The last named might well be incorporated in the most substantial educational program.

At this time of year, the members of the auxiliaries naturally turn their eyes backward to what has been accomplished rather than forward to the unkonwn months ahead.

Colorado was honored during the past year with the visits of Mrs. Arthur B. McGlothlan, national president, and Mrs. James B. Percy, organization chairman of the western section. Much inspiration was gained from both visits.

Two of our members have gained well-earned recognition nationally. Mrs. Geo. W. Miel was appointed publicity chairman of the western section this past year, and at the national meeting held in New Orleans in May was reappointed for the coming year; Mrs. John A. McCaw was elected national parliamentarian in New Orleans.

Through the summer months with suspension of meetings, let us keep in mind the state meeting in Estes Park in September. With the beautiful background and many diversions of the park, every one of us should plan to be on hand.

DENVER COUNTY

The Woman's Auxiliary to the Denver County Medical Society held its last regular meeting Monday, May 16, at the nurses' home of the Denver General Hospital.

The following officers were elected for the coming year: President, Mrs. H. R. McKeen; first vice president, Mrs. Virgil Sells; second vice president, Mrs. W. E. Sunderland; secretary, Mrs. Charles Dorsey; treasurer, Mrs. Harry Gauss; auditor, Mrs. H. D. Ulmer; parliamentarian, Mrs. F. P. Gengenbach.

The Auxiliary has had a most successful past year under Mrs. H. J. Corper, outgoing president. Probably the most outstanding innovation was the establishment of an annual president's day, which this year was the March meeting. All the presidents of the Federated Women's Clubs and other outstanding clubs in the city are to be invited once a year to visit the auxiliary meeting. This year forty were present.

Beginning this year, also, Hygeia was distributed to all the pre-schools in the city.

The social events were also outstanding. A tea was given for the foreign delegates to the health section of the World Federation of Education.

Looking back over the year, Mrs. Corper can well be proud of the accomplishments under her guidance.

Mrs. McKeen has been an active member of the Denver Auxiliary for years, besides being very enthusiastic and interested in the work. She is well-chosen to carry on.

Because of the close proximity of the last meeting to Mothers' Day, the program was appropriately given by a mother and her daughter, Mrs. Sam Freid and Miss Francis Freid.

Mrs. James Rae Arneill was Social Chairman for the day and with her assistants served a most delightful tea.

The 1931 Year Book of the National Probation Association

This publication contains the latest information on Probation, Juvenile Courts, and Crime Prevention. It is written by some of the ablest authorities in these fields.

The Year Book is a valuable source of information for those in court professions and other types of social work. It is important as a reference book for Colleges, Schools and Libraries.

The price of the 1931 Year Book (paper bound) is $1.00. Address National Probation Association, 450 Seventh Avenue, New York, N. Y.

Bring your wife to Estes Park, September 8, 9 and 10. She will enjoy it, too.

AMERICAN CONGRESS OF PHYSICAL THERAPY

Eleventh Annual Session, September 6, 7, 8, 9, 1932 Hotel New Yorker, New York

Announcement is made of the Eleventh Annual Scientific Session of the American Congress of Physical Therapy, which, this year, will be held in New York City. The Hotel New Yorker, with its excellent convention facilities, will be the official hadquarters. The convention will be conducted over the week from September 5 to 10, but, officially, the scientific sessions will be run on September 6, 7, 8, and 9. On September 10, clinics will be given at more than fifteen New York Hospitals.

The preliminary program which has been arranged definitely marks the 1932 session of the Congress as the year's outstanding event in physical therapy. The leading teachers, clinicians and research workers in the field have accepted invitations, and will contribute valuable scientific information to this year's Congress.

Added features in connection with this year's program are the new sections on stomatology and colonic therapy. The demand for authentic instruction in these respective specialties has prompted the program committee to ask for scientific contributions from prominent clinicians. The response has been unusual, permitting the organization of a full day's program in each section.

The sections on Medicine, Surgery, and Eye. Ear, Nose and Throat will, as heretofore, include their various group and allied specialties. Cancer, tuberculosis, and arthritis are favorite subjects which will be discussed in interesting symposia. The subject of electrosurgery of tonsils will be adequately dealt with by prominent laryngologists in the eye, ear, nose and throat section.

The outstanding achievement in physical therapeutics, the production of artificial fever by diathermy and its use in various chronic diseases, will occupy a special place on the program. Representative workers are prepared to present available data of their accomplishments with this newer therapeutic agent.

The Congress meets in the East for the first time in its eleven years of existence. This is the result of numerous invitations which have come from Eastern leaders engaged in the physical therapy science. From present indications this convention should attract the largest attendance in the history of the Congress. Preliminary programs may be secured by addressing the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

The American Occupational Therapy Association is about to issue its first Annual Directory of Qualified Occupational Therapists, which will include the names of those who applied and were found qualified for admission to the National Register established by the Association early in 1931.

It is interesting to recall that the late Dr. Thomas W. Salmon, who was keenly interested in treatment by occupations—not only for persons suffering from mental and nervous disorders, but for many other types of illness and disability—suggested some years ago that the Association establish a register or directory of properly qualified workers, "to protect hospitals and related institutions from unqualified persons posing as Occupational Therapists."

Speaking not only for himself, but for other physicians interested in occupational treatment, Dr. Salmon also said, "We want a directory to which we could refer for information about a candidate for a position in occupational therapy with as much assurance as we refer to the directory of the American Medical Association for information about a doctor."

Acting on the advice of leading medical and nursing organizations, the Association decided, as a first step towards the establishment of a national directory, to set up minimum standards of training, which were first promulgated in 1923. The standards were raised in 1926 and again in 1929, and the latest standards are now being met in the leading training schools recommended by the Association.

It is gratifying to record that graduates of some of the leading occupational therapy training schools in the United States are holding leading positions in other countries; also that several students from abroad are at present taking training in our schools. Copies of the new directory may be secured from the Association at 175 Fifth Avenue, New York, N. Y.

THE 1932 GRADUATE FORTNIGHT OF THE NEW YORK ACADEMY OF MEDICINE

Tumors, benign and malignant, will be the theme of the 1932 Graduate Fortnight of The New York Academy of Medicine. The medical profession of the country is invited to participate in the intensive two-week study of this important medical and surgical subject.

A full program of clinical demonstrations, lectures and conferences has been arranged to cover all phases of tumors, their diagnoses, and treatment.

Concurrent with the Fortnight, and for an added week thereafter, there will be housed in the academy building an exhibition of anatomical specimens numbering approximately 3000 units. A number of the sections in the exhibition will be subjected to lecture demonstrations at regular intervals.

Ten evening meetings have been arranged during which tumor growths in various parts of the human anatomy will be discussed. Among the speakers are included Doctors W. Gordon M. Byers, Edwin Beer, Charles A. Elsberg, James Ewing, Donald C. Balfour, Daniel F. Jones, Dean Lewis, Francis Carter Wood and others.

Thirty afternoon clinical meetings and demonstrations have been arranged in eighteen of New York City's leading hospitals, including Bellevue, Lenox Hill, Presbyterian, St. Luke's, Fifth Avenue, Post-Graduate, Neurological Institute, and others.

The Fortnight will be held from October 17 to 28, inclusive.

The profession of the country is invited to attend and to participate in the Graduate Fortnight. There is no charge for attendance at any of the clinics or meetings, but registration is required for participation in the hospital demonstration clinics.

A complete program and registration blank for the clinics and demonstrations may be secured by addressing The New York Acadmey of Medicine, 2 East 103rd Street, New York City.

WYOMING SECTION

President, R. H. Sanders, Rock Springs — Vice President, Herbert L. Harvey, Casper
President-elect, Frederick L. Beck, Cheyenne
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to the A. M. A.: George P. Johnston, Cheyenne — Alternate, Earl Whedon, Sheridan
Councillors: C. Y. Beard, Cheyenne J. H. Goodnough, Rock Springs F. C. Shaffer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan Emory L. Jewell, Shoshoni C. W. Jeffrey, Rawlins

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

On to Rock Springs, July 18 and 19

THE Thirtieth Annual Meeting of the Wyoming State Medical Society will be held in Rock Springs July 18 and 19. That announcement ought to be enough to cause every medical man and his wife to begin preparing for a wonderful trip to the southwestern part of Wyoming.

When the fishing season opening dates are announced every boy and man begins months before to look over his fishing equipment, assorting his flies, hooks, spinners and leaders, patching up his waders or rubber boots, swinging his favorite fishing pole and anxiously counting the days ahead so as to be ready for the great day. Just so the announcement of the dates for our Annual Meeting ought to stir in our blood the desire to go to Rock Springs.

The program will be found in this issue. We are proud to publish it. The good things in store will repay every member of the society for the trip. The members of the Sweetwater Medical Society have been working for months to make the Thirtieth Meeting the best one ever held by the Society. Ye Editor knows because he has been in touch with the members of this Society for months as the program has grown. This work by the local County Society will certainly make the meeting a successful one. They want every doctor in Wyoming, Colorado, Utah, Nebraska and Montana to come to Rock Springs. The Sweetwater County Medical Society will do everything possible to show these medical men the best time of their lives. Honestly, the Sweetwater Medical men want you to come!

Just as a good investment pays dividends, so attendance to an outstanding medical meeting pays big dividends to every doctor who attends. Times are hard, they're the worst we have ever seen, and no doctor is so rich that he can afford to miss this meeting. The poor man simply must go. You can't afford to miss this meeting. You will learn things that will help you to make money. You will be a better doctor when you return. The drive across this wonderful state of ours never was more beantiful than today. Everywhere the grass is green, the cattle and sheep are fat, and the mountains are simply wonderful.

So begin planning to leave home Sunday morning, July 17. Bring the wife and kiddies and let us all be there and enjoy a great time. Invitations have been sent to the adjoining states. We want all our friends to come: Rock Springs—July 18 and 19.

Consolidate the Boards

TODAY we are all poor. There are no rich people left. There used to be a few in Wyoming, but not so today. Wyoming as a state is rich in natural resources, but ready cash is as "scarce as hen's teeth."

Several thousands of dollars can be saved by consolidating all the examining boards in the state and at the same time just as good results can be secured. The Medical, Dental, Nursing, Pharmacy, Chiropractic,

Optical, Law, Engineers, Mortuary, etc., boards could be consolidated as one examining board and save several thousand dollars a year. A secret committee from the different State Societies could prepare the questions, and the examining board could hold two examinations each year and do all the work now done by nine or ten boards.

Cost of government must come down to meet the times, and the man who tells you prosperity is just around the corner is nowhere to be found. Hard work, and lots of it, is ahead for several years and we might just as well face the music. In August, 1931, we advocated an open cut in the fees charged for surgical services, in place of cutting them behind each other's backs. Today conditions have changed.

Men whose investments in stocks and bonds used to bring in their owners good dividends, receive little or nothing and many of the stocks are not worth ten cents on the dollar. Look at the depreciation in all property and losses in valuation and then try to find any reason for nine or ten examining boards. Let the medical profession take the lead in offering such a consolidation and show our willingness to meet the conditions of today.

Each state society could select and recommend for appointment to the governor three men in Cheyenne or near Cheyenne to serve on this Consolidated Board so that traveling expenses could be cut out and the job just as well done, perhaps better than under the old system. This would result in non-partisan boards and would eliminate party politics.

Such a board would not be a political machine. Whoever so served would be under no political obligations. This in itself would raise the morale of the Consolidated Board and give applicants confidence in the acts of the Board. Some may object to Cheyenne receiving all the appointments, but we have the utmost confidence in the Cheyenne men.

Our President's Letter

I WOULD like to make use of our Journal to address the medical men of the state and express to them my appreciation of the friendly consideration and loyal support that has been tendered me during my term of office.

Also I would like to suggest to the members of the State Medical Society the necessity of taking more interest in politics, and whenever possible to send some member to the State Legislature, as Medical Economics is becoming one of the outstanding questions of the day.

The Sweetwater County Medical Society is going to put forth every effort to make the July meeting in Rock Springs a success, and we would ask every doctor to make a little sacrifice and attend, for I am sure each one will be well repaid.

We have invited members of the adjoining states, and I wish to assure them that any members of those societies who may attend the Rock Springs meeting will receive a cordial welcome.

Let's all meet at Rock Springs July 18 and 19.

ROBERT H. SANDERS,
President, Wyoming State Medical Society.

Obituary

Albert G. Hamilton

Dr. A. G. Hamilton was born in Mattoon, Coles county, Illinois, August 8, 1865, and received his early education in that county. After graduating from the Cincinnati Medical School in 1887 he located at South Bend, Nebraska. In 1907 he moved to Thermopolis, where he established the Hopewell Hospital and practiced until the time of his death, June 9.

Dr. Hamilton was a member of the American Association of Surgeons, the Masonic Lodge, and the Eagles and Elks organizations. Funeral services were held June 12, the Episcopal service being used, with Rev. Emery Van Hise officiating. The local Masonic lodge conducted the services at the cemetery.

Dr. Hamilton is survived by his widow, Laura Hamilton; a daughter, Mrs. T. R. Satterfield; one sister, Margaret Hamilton, and a brother, John Hamilton. His son, Dr. Tom Hamilton, died a few years ago.

THIRTIETH ANNUAL MEETING OF THE WYOMING STATE MEDICAL SOCIETY

Rock Springs, Wyoming, July 18-19, 1932

Registration Headquarters—Elks Club.

Medical Society Meetings—Elks Club.

For Hotel Reservations write Dr. J. H. Goodnough, Rock Springs, Wyoming.

Play safe. Make your Hotel Reservations now, as Rock Springs is on one of the main highways leading to the Olympic Games, and some tourist may get in before you do.

SUNDAY, JULY 17, 1932

8:00 p. m.—Smoker, entertainment by Sweetwater Medical Society. Doctors will meet in lobby of Park Hotel at 7:30 p. m.

9:30 p. m.—Meeting of the House of Delegates at the Elks Club.

MONDAY, JULY 18, 1932

MORNING SESSION

6:30 to 8:30—Golf tournament at Rock Springs Golf Club. Local golf Committee will have complete charge.

7:30—For those not playing golf a trip down in the Gunn-Quealy Coal Mine at Sweetwater. This trip for both ladies and men. Courtesy of Mr. G. Knox, Manager, Gunn-Quealy Coal Company.

8:00—Clinics at the Wyoming General Hospital.

10:00—Call to Order—Dr. R. H. Sanders, President Wyoming State Medical Society.
Address of Welcome—Mayor Bunning of Rock Springs, or his representative.
Address of Welcome—Dr. K. E. Kreuger, President of Sweetwater Medical Society.
Response—Dr. Edward Henry Cary, President, American Medical Association, Dallas, Texas.
Presidential Address—Dr. R. H. Sanders, Rock Springs.
Secretary's Annual Report—Dr. Earl Whedon, Sheridan.

12:30—Luncheon at "Howard's Cafe."

AFTERNOON SESSION

Elks Club

1:30—Scientific Meeting.

1. Paper. "Procedures Which Should Be Routine in the Post Operative Conduct of a Surgical Case." Duval Prey, M.D., Denver, Colorado.
2. Paper. "Glaucoma," with lantern slides. Edward Henry Cary, M.D., President, American Medical Association, Dallas, Texas.
3. Paper. "Raynaud's Disease and Differential Diagnosis." Foster J. Curtis, M. D., Salt Lake City, Utah.
4. Paper. "Sinus as a Source of Infection." William P. Wherry, M.D., Omaha, Nebraska.
5. Paper. "Blood Dyscrasias." Warren Thompson, M.D., Omaha, Nebraska.
6. Paper. "Cleft Palate and Cleft Lip." William Lete Shearer, M.D., Omaha, Nebraska.
7. Paper. "A New Method of Treating Burns," Ralph T. Richards, M.D., Salt Lake City, Utah.
8. Paper. "Modern Phase of Traumatic Epilepsy." S. K. J. Hohlen, M.D., President, Nebraska State Medical Association, Lincoln, Nebraska.

7:00—Annual banquet and dance at the Elks Club, tendered by the Sweetwater Medical Society to all members of the State Medical Society, their ladies and guests. Toastmaster, Dr. Oliver Chambers.

TUESDAY, JULY 19, 1932

MORNING SESSION

6:30—Final of Golf Tournament.

8:00—Clinics Medical and Surgical at the Wyoming General Hospital.

10:00—Meeting of the House of Delegates at Elks Club.

AFTERNOON SESSION

1:30—Scientific Meeting.

1. "Surgical Tragedies." S. D. Van Meter, M.D., Denver, Colorado.
2. "Urological Diagnosis" with lantern slides. Charles Rex Kennedy, M.D, Omaha, Nebraska.
3. "Tuleremia." Richard A. Pearse, M.D, President Utah State Medical Association, Brigham City, Utah.
4. "Bone Tumors Roentgenologically Considered," with lantern slides. Frank B. Stephenson, M.D., President-Elect, Colorado State Medical Society, Denver, Colorado.
5. "Pediatric Opportunities in Rural Practice." Roy P. Forbes, M.D., Denver, Colorado.
6. "Medical Management of Gastric Ulcers." G. Gill Richards, M.D., Salt Lake City, Utah.
7. "The Industrial Commission of Utah and Its Relation to the Medical Profession." John Z. Brown, M.D., Councilor Utah State Medical Association, Salt Lake City, Utah.
8. "The Privilege of Death." Jay George Wanner, M.D., Rock Springs, Wyoming.
9. "Pains in the Back." Joseph Edgar Tyree, M.D. Salt Lake City, Utah.
10. "Causes and Treatment of Prolapse of the Uterus," Lawrence C. Meredith, M. D., Sheridan, Wyoming.
11. "Toxic Goiter," W. Andrew Bunten, M. D., Cheyenne, Wyo.

GOLF PRIZE

Dr. W. W. Horsley of Lovell won the golf tournament in 1930 at the Sheridan meeting. Dr. W. K. Mylar won the 1931 tournament at Rawlins. The rules of the State Society provide that to retain this cup it must be won for three years. Please notify the golf committee of your intention to play so that they can arrange the plan of the play.

PROGRAM OF THE LADIES' AUXILIARY OF THE WYOMING STATE MEDICAL SOCIETY MEETING

SUNDAY, JULY 17, 1932

Sunday afternoon and evening—Meeting ladies at the Park Hotel on their arrival.

Buffet supper, home of Mrs. E. S. Lauzer. Informal from 6:00 p. m. on.

MONDAY, JULY 18, 1932

7:30 a. m.—Visit to Gunn-Quealy Coal Mine. Visitors will be conducted down in mine at Sweetwater.

1:00 p. m.—Bridge Luncheon at Union Pacific Dining Room at Green River, Wyoming. Transportation arranged.

7:00 p. m.—Banquet and dance with doctors at the Elks Club.

TUESDAY, JULY 19, 1932

9:30 a. m.—Breakfast at "Howard's," followed by business meeting.

11:00 a. m.—Bridge at home of Mrs. Oliver Chambers.

STATE AUXILIARY OFFICERS

President ..... Mrs. F. A. Mills, Powell
President-Elect ..... Mrs. E. L. Jewell, Shoshoni
Vice President ..... Mrs. Chester Harris, Basin
Treasurer ..... Mrs. Galen Fox, Cheyenne
Secretary ..... Mrs. Paul Reed, Worland

LOCAL COMMITTEES

Mrs. K. E. Kreuger, Chairman

Mrs. Jay G. Wanner
Mrs. Oliver Chambers
Mrs. R. H. Sanders
Mrs. T. H. Roe
Mrs. E. S. Lauzer
Mrs. A. Davis
Mrs. J. H. Goodnough
Mrs. J. E. Whalen
Mrs. E. F. Scheidegger
Mrs. J. Fuhrer
Mrs. Wm. McDill
Mrs. C. O. Larson

OFFICERS

President ..... Dr. R. H. Sanders, Rock Springs
President-Elect ..... Dr. F. L. Beck, Cheyenne
First Vice President ..... Dr. H. L. Harvey, Casper
Secretary ..... Dr. Earl Whedon, Sheridan
Treasurer ..... Dr. Evald Olsen, Meeteetse

COUNCILORS:

Dr. F. C. Shaffer, Douglas, three-year term.

Dr. J. H. Goodnough, Rock Springs, two-year term.

Dr. C. Y. Beard, Cheyenne, one-year term.

MEDICAL DEFENSE COMMITTEE:

Dr. Earl Whedon, Secretary, Sheridan.
Dr. E. L. Jewell, Shoshoni.
Dr. C. W. Jeffrey, Rawlins.

DELEGATES TO THE A. M. A.:

Dr. George P. Johnston ..... Cheyenne

ALTERNATES TO A. M. A.:

Dr. Earl Whedon ..... Sheridan
Dr. C. W. Jeffrey ..... Rawlins

EDITOR:

Wyoming's Part of Colorado Medicine .....
..... Dr. Earl Whedon, Sheridan

LOCAL COMMITTEES

Entertainment—Dr. E. F. Scheidegger, Chairman; Dr. R. H. Sanders.

Golf—Dr. Oliver Chambers, Chairman; Dr. K. E. Kreuger.

Hotels—Dr. J. H. Goodnough, Chairman; Dr. T. H. Roe, Dr. D. W. Joslin.

Clinics and Place of Meeting—Dr. E. S. Lauzer, Chairman; Dr. John E. Fuhrer, Dr. Oliver Chambers, Dr. W. McDill.

Program—Dr. Jay G. Wanner, Chairman; Dr. A. Davis, Dr. C. O. Larson, Dr. J. E. Whalen.

WYOMING NEWS NOTES

Dr. and Mrs. J. L. Wicks have just returned to their home in Evanston after an extended trip to Los Angeles, then by boat to New York via the Panama Canal. While in New York the doctor got a new car and they drove back, visiting Washington, D. C.; Wheeling, W. Va.; Cleveland, Ashland and Columbus Ohio; continuing home via Indiana, St. Louis and Denver.

In activated cereals there is only one part viosterol to 10,000,000 parts of cereal, which makes such a process seem useless.

Take this journal home to your wife.

VASOMOTOR AND TROPHIC DISTURBANCES*

J. C. KAMP, M.D.
CASPER

The title of this paper covers the rather rare but very important disturbances of the autonomic nervous system which includes Raynaud's disease, erythromelalgia, angioneurotic edema, scleroderma, and sclerodactylia; in my opinion it should also include thromboangiitis obliterans, or Buerger's disease. It might appear to you that these conditions are rather odd ones to select to be presented to men who are more in general practice, but I assure you that this subject is as important to the general practitioner of the present time, as the more common disease conditions we have to contend with. It is my intention, in presenting this work, to give some expression of detail as to the etiology, symptomatology, diagnosis, and treatment of the above named conditions.

First, let me state that the true knowledge of the autonomic nervous system is quite indefinite. If we could trace definitely the nerve supply of our circulatory system, we perhaps could clear up the etiology and consequently the treatment of these very important disease conditions. We do know that they contain both efferent and afferent components of the autonomic nervous system. The efferent components include both vasoconstrictors and vasodilator fibers. The anatomical relationship to the peripheral blood vessels is not fully known. Neither is it known to what extent the peripheral blood vessels are supplied with vasodilator fibers. The afferent components distributed to the blood vessels are components of the sensory cerebrospinal nerve roots. Some of the finer nerve fibers accompany the blood vessels to their finest distribution, there to penetrate the adventitia of the peripheral arteries and lose themselves either in the adventitia or the media.

The distribution of these nerves over and within the blood vessels has never been definitely worked out. Some believe that it is a continuous plexus, while others believe that these circles of blood vessels are incomplete. The question of the distribution of these nerves, whether to the large blood vessels, to the peripheral circulation, or to the capillaries, should then be held in abeyance. It will suffice to say that the nerve supply to the circulation is at fault in producing these disturbances. Before going into the etiology, I wish to call your attention to the fact that these interesting disturbances are very much more common than our present day text books would make one believe. Because of this, I have chosen this subject so that you may be on your guard in recognizing it and in making a differential diagnosis. Early recognition of such important conditions as cancer, tuberculosis, et cetera, we have the key to their cure. It is the opinion of the writer that the vasomotor disturbances are intimately related—from the mildest form of chilblain to the destructive conditions resultant from edema of the glottis, trophic ulcers and the complete gangrenous destruction of one or more of the extremities. So slight can some of these be—as the ordinary chilblain, cold hands and cold feet, mottled conditions of the skin, numbness and tingling of the extremities—that they may go unrecognized as the onset of vasomotor disturbances. The true nature of the condition may be unrecognized until a condition of extreme Raynaud's disease with all its complications has become established, or until the condition has gone beyond that of a vasomotor disturbance and has led to changes within the blood vessels themselves, as thrombus formation, complete closure of a blood vessel, with the resultant trophic disturbances, gangrene, and death of a part. My attention to these cases was first called in a case of erythromelalgia. In studying this case carefully, it came to mind that several similar cases had passed through our office. The symptoms had simulated erythromelalgia in different degrees, and before I got through I had resurrected two cases of Raynaud's disease, two cases of erythromelalgia, one of angio-

*Read before the Carbon County Medical Society May 13, 1932.

neurotic edema, one of scleroderma with sclerodactylia, and two cases of thromboangiitis obliterans. Whether I have been fortunate or unfortunate to see these so-called rare and interesting entities is debatable. Within the last two or three years, a great deal has been written covering these subjects both in this country and abroad. Previous to that time we were made to believe that they were very rare. Sir William Osler and later Dr. Archibald Molloch, who rewrote Osler's remarks on these subjects in Osler's Modern Medicine, edited by McCrae in 1927, states that from among 23,000 patients at John Hopkin's Hospital, only nineteen cases of Raynaud's disease occurred. Cassierer, who is quoted extensively wherever these subjects are debated, states in his monograph that only one case of erythromelalgia has occurred in 3,000 patients. I believe that these statistics, even the short time since they were written, have outlived their usefulness, so that we must take care in our daily practice that none of these unusual disturbances pass us by.

Etiology

Perhaps our present method of living, the rush and the excitement of business and pleasure—consistently throwing an immense amount of work upon our endocrine glands, our nervous system, and on our circulation, may have something to do with their more common appearance. We will leave that to your judgment. We do know that fear, anger, grief, fright, anxiety, mental shock, excitement, mental and nervous exhaustion, psychoneurosis, exposure to exhaustion, sudden change in temperature, exhaustive diseases, disharmony or dysfunction of the ductless glands, toxic states, protein sensitization, the diathesis of colloids, disequalibrium of the neurotonomic system might all be brought into play as the etiological factors. Sometimes we find that these disturbances are familial, as in two of my cases: erythromelalgia in a young girl and sclerodactylia in her aunt. This might be a coincidence, but knowing the family as I do, I believe it is familial.

Sex must also be taken into consideration, and in the vasodilator varieties of these disturbances one may say that from 90 to 95 per cent of the cases occur in women, while that of the more advanced and organic disturbances, like thromboangiitis obliterans, 90 to 95 per cent are found in men. There then, is a point which might have something to do in etiology. By that I mean that the different hormones of the two sexes which are supposed to have something to do in maintaining the tone of the nervous system, might have something to do in the selection of their differences of the two sexes; I say, it might. Raynaud himself states that sexual disturbances play an important part in etiology, but it is my opinion that this may be in those cases that carry on the excesses. The vasomotor disturbances of the sexual act, or during menstruation, pregnancy, and lactation, everyone has seen—mildly, of course.

In studying the etiology, one is also impressed by the races that are involved more commonly. We do know that the Hebrews are very much more susceptible to thromboangiitis obliterans than are other races. We know also that the other so-called functional disturbances, such as Raynaud's disease, are seen more commonly among the Americans, Italians, and French; not very many of these cases are seen among the Germans or the English. I think that this is also quite evident if one were to study the makeup of the different races. The Hebrew with his alertness in business and his "push" in every line of endeavor, the American, the Italian and the French, with their snap and overabundance of energy, might make them more prone to these disturbances than the phlegmatic races like the German and English. This, then, makes an interesting background of the etiological factors.

Symptomatology

One must admit that for proper classification one must divide these conditions into two great groups: those cases which show the purely functional phenomena, as in Raynaud's disease, and those cases in which definite pathological changes have occurred, as in Buerger's disease. In the milder functional disturbances we can see various disturbances from the simple cold hands and

feet, mottling of the skin, tingling sensations of the extremities during exposure, the simple symptoms of chilblains, the changes in the color of the feet and legs especially when these extremities are hanging down—from pink to red, then purple, then blue from changes in the temperature from the extremes of cold to hot—the amount and character of the pain, the changes in the character and the differences of the edema, to the extremes of destructive conditions or the end results of either the functional conditions like Raynaud's disease or scleroderma, or Buerger's disease. No doubt all of you have seen either the moderate or severe disturbances of the vasomotor nervous system associated with different degrees of pain and changes in the character of the skin and underlying tissues with nervousness. When these patients come to you with varieties of these conditions as mentioned above and without any definite reason therefor, one must always keep in mind the vasomotor disturbances. Rheumatism, intestinal "flu," influenza, and other "snap" diagnoses should be under suspicion. These cover a multitude of sins in diagnosis, and I could, if time permitted, relate to you some of the grotesque findings we have found in patients who have come to our office with diagnoses of this kind.

Raynaud's disease: Local syncope of a finger, toe, hand, or a foot is perhaps the most common phenomenon which first calls our attention to this diagnosis. The ears and nose may be affected, giving a dead white appearance to the skin, perhaps patchy at first, later covering large areas. Sometimes a slight ischemia may occur before the syncope. The affected part looks dead, cold, and clammy, and the patient may complain of numbness, a heavy, painful feeling, or the sensation of pins and needles. There is not very much pain at this time and the part involved feels more or less stiff. This lasts from a few minutes to as much as an hour. Then comes the change back to the normal. The paresthesia of the waking numbness first occurs while the capillaries are beginning to fill; the color will assume a bluish tinge, purple, red, and then back to normal. It is during this period of the return of the circulation that the pain is quite severe. The temperature of the parts during the syncope is much lowered. Sometimes these conditions recur once in two or three weeks and it is when they become severe, that is eight or nine times a day, that pathological changes may occur. Recurrent attacks of this particular form of syncope followed by cyanosis and return to the normal will make for definite changes in the character of the skin of the parts involved, even to conditions which simulate typical scleroderma. Naturally, when changes of this character occur, blebs will begin to form and localized areas of gangrene occur; the parts become very sensitive to touch, and then the patient becomes extremely nervous, even hysterical. Local complications of all kinds may occur, changes in the eye, especially in the retinal vessels, mental changes, epileptiform convulsions, blood in the urine, advancing changes of the heart and blood vessels, and changes within the joints may occur. One must remember, of course, the destructive changes that occur in the skins of the parts involved.

In angioneurotic edema, or Quincke's disease, one usually finds that there are three varieties: Mild; those with itching and swelling of one single part of the body, which may be easily mistaken for the simple urticaria and without apparent involvement of the general health. Second, cases in which the swellings are much larger, even to the degree where the bulk may become troublesome. The hands may be like boxing gloves. the lips swollen, the eyes closed, and there may be such a hemorrhagic edema of the walls of the stomach to produce colic, vomiting, intestinal cramps, and diarrhea. This group may last from childhood to old age, recurrent in character, and may make the patient's life a burden. Third, more severe and malignant in type, the edema becomes so great, affecting the larynx and throat in each attack, that unless immediate tracheotomy is performed, the patient usually succumbs. It is peculiar the way the skin becomes affected: Its appearance at first is similar to the edema of a decompensated

heart and in the earlier cases may readily pit on pressure; later, during the course of the disease, the skin becomes very much more firm, of an opaque white color, and shuts off the circulation in the skin to such a degree that blebs may form. Later, should the swelling go down, this skin becomes atrophied and yellowish white in color and typical of that which has undergone a severe circulatory upset. Fever rarely occurs and other complications, except those mentioned in the gastro-intestinal tract and those of albuminuria with blood, are not so very common. Sometimes these conditions go for a period of time and then get entirely well, seemingly as if a recovery of the vasomotor system has occurred.

Scleroderma: There are three conditions which must be kept in mind at the onset: the simple atrophic, the edemetous, and the erythematous. In the simple atrophic, which is the most common, simple stiffness of the hands and feet without definite swelling, may be felt and may be followed with circulatory changes of the fingers or toenails. The extremities turn blue when the slightest exposure to cold occurs. The extremity then becomes congested, and the skin loses its softness. Pain simulating arthritis occurs, and the face usually assumes a masklike appearance; fever occurs, ranging from 100 to 103 degrees Fahrenheit. Movement in all parts of the body becomes limited. Wasting then occurs, extreme attacks of diarrhea persist until the patient becomes, literally speaking, a breathing mummy. Sometimes pigmentation of the skin occurs with it. In the edemetous variety, all of these symptoms occur in addition to vasomotor disturbances of the skin as appears in Raynaud's disease. This does not limit itself alone to the extremities, but affects different parts of the body. Numbness and tingling, of course, may be present as in Raynaud's disease. The condition may become very chronic, and then again spontaneous recovery may occur. Cachexia is the cause of death unless some intercurrent disease concludes the case.

Erythromelalgia: The symptoms in this condition are somewhat different than it is described above. Redness, pain, and swelling, usually of one extremity, are made worse when the part hangs down. Pain occurs on use of the extremity, all of these disappear when the foot is elevated and with a normal return of its temperature. Without symptoms elsewhere in the body, these signs and symptoms usually clarify the diagnosis. The feet are most often involved, but at times the hands. It rarely reaches the elbow or the knee, and in striking contrast to Raynaud's disease, rarely affects the ears or nose. Abdominal colic may occur as in Raynaud's disease or Quincke's disease. The most striking thing is the redness of the part involved, and one of the most striking features about the condition is the influence of the change of posture. Swelling is a common occurrence and hyperasthesia may be present. Should the foot not be elevated at times so as to prevent the circulatory changes, blebs may occur. It is the opinion of the writer that this condition is a milder form of an excitation of the vasomotor system and Raynaud's disease. In thromboangiitis obliterans or Buerger's disease, redness of the dependent position of the limb, marked by blanching when elevated, and evidence of arterial occlusion in the form of pulseless blood vessels may be followed by trophic disturbances of moderate to grave extent and which often terminate in gangrene and loss of one or both extremities. With this will be found spastic disturbances of the collateral circulation in varying degrees. Considering the fact that this spasm of the collateral circulation occurs, it might be possible that this same condition of spasm has occurred in the vessels which already show definite pathological changes, and possibly to such a degree that these resultant changes have occurred from a continuous spasm. It is readily seen that there is not much difference in the symptomatology of these so-called functional and organic disturbances. We may readily feel that one may be the continuation of the other.

Prognosis

An optimistic viewpoint should always be held in disturbances of the vasomotor sys-

tem—taking into consideration the ability to remove the etiological factors, the amount of damage done to the nerves, arteries, or structures supplied by them. Guard well your prognosis until these things have been definitely elucidated. Optimistic views should prevail even toward cases of Buerger's disease which have definite pathological changes. Spontaneous recoveries have been reported, and considering the amount of research work done, continuous improvements in treatment may be expected.

Treatment

Primarily, the index to treatment of any condition is the removal, so far as possible, of the etiological factors. This is sometimes difficult, and to remove the cause in a neurotic family or individual is at times impossible. Naturally the treatment depends entirely upon the severity of the condition, individualizing differences of functional and organic conditions. Understanding the underlying nervous condition, the removal of all foci of infection, correction of modes of living, establishment of confidence between the physician and patient, and plenty of rest, must be attained. Exposure to cold must be avoided and if the economic condition of the patient permits, see that they go to a warmer climate during the winter months. Relief of pain is essential. The best results we have obtained is through the use of codeine, but sometimes morphine is required. Rest of the affected part, either in bed or by elevation, must prevail. Remember that the condition is one involving the nervous system and the circulation, and be sure that the dependent part is protected to prevent bed sores. Rest may be obtained by the use of opiates, the barbital or bromide preparations. It is absolutely essential in obtaining the improvement of the patient's general condition. Force fluids so that a proper water balance may be maintained in the body and all toxic substances diluted. In Raynaud's disease in its earliest stages, massage the affected parts for one-half hour twice a day for the purpose of giving tone to the blood vessels. Antispasmodics have all been tried without avail. I may mention one with which I have had very little experience but which will be tried in future cases; this is nervinal or (phenylethylhydantoin). The reason this is mentioned is that I have used this medicine in three cases of the milder chorea, and one case of paralysis agitans with an excellent result. I do not know what its action is, but I do know that about the third or fourth day after the commencement of the treatment, there is an increase of all of the symptoms, the temperature begins to rise, going as high as 103 to 105; about the seventh day the rash begins, resembling measles, and within forty-eight hours it usually covers the entire body. At the end of this time the treatment is then discontinued and followed in about three days by a disappearance of all the symptoms including the choreiform movements. This is the best form of treatment ever known in the treatment of chorea and there is strong evidence to show that it diminishes the frequency of the development of endocarditis. The reason this point was brought out is that fever, whether it is produced by the use of medicine, foreign protein, or the so-called diathermic fever, its production in these patients relaxes the spasm of these blood vessels and gives temporary relief. Sometimes, if these methods of procedure are used early and often enough, the relief may be so great that normal function of the vasomotor system may be re-established. Some have reported good results from the use of diathermy, but I have had very little success with this method. Thyroid extracts in all forms have been used to stimulate metabolism and the activity of the autonomic nervous system. O'Leary, of the Mayo Clinic, has had good results in the treatment of scleroderma with thyroid extract, LeRiche and others have shown that parathyroidectomy, especially in the spastic conditions like scleroderma, and particularly on account of the concretions in the skin, has given good results. The use of ultra violet light treatment, particularly in scleroderma, has proved of benefit at the hands of some authors. A cradle with the heat of electric light during the winter months gives good results. The use of adrenalin or ephedrine in large doses in the early treatment of angioneurotic

edema has been described and good results reported. This should be used quite early, especially in the second degree, to prevent edema of the glottis. Babonunix, as early as 1927, used diathermy to produce fever in the treatment of scleroderma. Monier-Vinard and others in 1929 recommended radium therapy of the cervico-dorsal spine in the treatment of Raunaud's disease with considerable success. Schwartzman, of England, in 1929 reported good results from the use of skeletal muscle extract in the treatment of Buerger's disease. Treatment of the open lesions should be done with Dakin's solution during the day and boric acid ointment during the night. Periarterial sympathectomy has been known for a long time and has been done with good results, but this has been replaced by the more radical sympathetic ganglionectomy with trunk resection, as recommended by Brown, Adson, McCraigs, LeRiche, and others, and has so far given the best results of any radical treatment. One of my patients who had this performed for Raynaud's disease has had an excellent result. Sometimes they miss some of the fibers and only fairly good results are obtained. I am not going into the pet schemes and a great many reports. I have only given you those which have, from my own experience and from the history of the literature to the present date, given the best results. I shall go briefly into a few of the classical cases, citing one of each from my private practice, most of which have been wrongly diagnosed and most of which have gone through all forms of treatment, even to sympathetic ganglionectomy.

Case Reports

Raynaud's Disease: Mrs. F., aged 28, married, one child living and well. There is nothing in the family or past history which has any bearing on the case. When first consulted, she told me she had had her present condition about five years, increasing in severity, but because her family doctor had told her that there was nothing the matter with her nothing definite had been done. When first seen, during November and after an exposure to the cold of walking a few blocks, both hands became that dead white so peculiar to Raynaud's disease. The diagnosis was established as Raynaud's disease affecting, to a severe degree, both hands and to a slighter degree, both feet. She was extremely nervous, but no other evidence of disease was found. All forms of antispasmodic medication were used, and codeine was given for the pain. The condition became more severe and the attacks more frequent. She was advised to go to the Mayo Clinic for treatment, having in mind Adson's operation, which was done in December two years ago. Thoracic ganglionectomy was done with very good results. The operation for the relief of the lower extremities has not been done, the condition not being severe enough to warrant such a radical procedure.

A second case of Raynaud's disease is not severe enough to warrant this procedure, but is under treatment with sedatives and x-ray exposures. It is my opinion that she may require sympathectomy within a short period of time.

Erythromelalgia: This case began about four years ago and is now occasionally seen. A girl, aged 18, normal in every way, was home in bed complaining of a severe pain in her right foot and leg. Her past history was negative, but the family history was one with a neurotic background. Her family physician told her that she had diseased bones and that the foot and leg would have to come off. As she says, when she held her foot down it became a purple color and as time went on, sores appeared around the nails, and when the color change occurs the foot and leg appear to be as helpless as if going to sleep. She claimed that her right arm at that time had numbness and tingling sensations. She also had some feeling that the condition would appear in the left leg because it became cold and numb. I had her write out her exact feelings; it is interesting the way she gives an unmistakable history of erythromelalgia.

Scleroderma: Mr. F., aged 40, noticed within the past several years, increasing stiffness of the fingers with a certain amount of necrosis of the nails. The character of

the skin of his hands had changed until the loose pink skin had changed to a thick, leathery, yellowish white skin. Arthritic pains occurred in both hands and feet, and when these symptoms of arthritis appeared, fever ranging around 101 confined him to bed. Sedatives usually gave some relief. What his condition was at that time, I do not know. A diagnosis of scleroderma with sclerodactylia was ventured.

Another case of scleroderma is that of a woman aged 40, the aunt of the girl who suffering from erythromelalgia. Her greatest trouble was the sclerodactylia, digestive disturbances, and extreme nervousness.

Angioneurotic edema: The only case of angioneurotic edema I have had was that in a woman, housewife, of an extremely nervous temperament, with a neurotic background, negative past, family, and personal history, who, upon examination, showed areas of swelling throughout her entire body, especially of the abdomen. A diagnosis of angioneurotic edema was made, sedatives were given, her diet corrected, foci of infection removed, and she seemed to be entirely relieved. Inquiry made a short time ago, revealed that she has never had another attack.

Buerger's disease: A young man, Mr. G., aged 35, Italian, married, negative family and past history, proprietor of a cleaning establishment. About two years ago he developed severe pain in the right foot and ankle, associated with redness and a feeling of heat. It increased as he held the limb down and was relieved, to a certain degree, upon elevation. He was treated for nearly two years for rheumatism and tuberculosis of the bone, among other things. When seen by the writer, he had a large trophic ulcer involving the whole dorsum of the foot. Local treatment was of no avail, the use of paratyphoid "B" emulsion, producing a temperature after its injection, gave some relief of pain, but the fact that his dorsalis pedis artery and his popliteal artery were pulseless made the treatment seem hopeless. Amputation was done in the upper third of the leg with good results, even in view of the fact that the popliteal artery was pulseless. No further evidence of the disease occurred in the other extremities and we feel sure that good results have been obtained.

Cervical Carcinoma*

Despite the fact that the uterine cervix is easily accessible both to sight and touch, cancer in this locality is usually in an advanced stage when first discovered. The subjective symptoms in early cervical carcinoma are vague or even absent and are not often recognized by the patient. Therefore, if cancer of the cervix is to be prevented and controlled, it will be necessary to make routine and periodic examinations of this organ.

As the majority of cervical cancer cases occur in women who have borne children, it is suggested that physicians should urge an annual or semi-annual examination of mothers to determine if there be any pathological condition of the cervix. It is usually preceded by some chronic lesion and is often associated with tears sustained at childbirth.

Professor W. P. Graves, Harvard University, in a study of 500 cases of cervical cancer, found that only two per cent of the patients had had cervical repair, while, on the other hand, among nearly 5,000 women who had received this treatment he found only six that had developed cancer.

The very early stage of carcinoma of the cervix cannot be definitely diagnosed clinically. In all suspicious lesions a biopsy should be employed at once. This is a safe and easy operation and does not require an anesthetic. A biopsy by a competent pathologist offers a quick and definite diagnosis.

Statistics show that 75 per cent of early treated cases survive the five-year period, while the salvage in advanced cases is comparatively small. Although the majority of cases of cervical cancer occurs near the menopause it must be borne in mind that this lesion is frequently found at a comparatively early age.

---

*From Health News, New York State Department of Health, September 7, 1932.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V July, 1932 **Number 7**

HEALTH examinations of students in high schools, colleges and universities are being applied more widely every year. Latent defects are thus brought to light and early treatment results in correction or cure of the incipient disease. Agencies for the control of tuberculosis have been among the leaders who stressed the importance of health examinations, and the value of the application of the tuberculin test and X-ray examination in the discovery of latent tuberculosis has been repeatedly demonstrated. The results of a recent investigation at the Henry Phipps Institute in Philadelphia into the incidence of tuberculous infection and tuberculous disease in medical and college students are presented below. Although the high incidence of tuberculosis in medical students may present a special problem the value of health examinations, here illustrated, has universal application.

TUBERCULOSIS IN MEDICAL AND COLLEGE STUDENTS

Since medical students either during their medical course or in subsequent years often become ill with tuberculosis, a study was undertaken to determine the frequency and severity of tuberculous infection among medical and premedical students of the University of Pennsylvania. The usual methods of investigation into the incidence of tuberculous infection and disease were employed.

After the weight and height had been recorded, inquiry made concerning respiratory disease with which they had suffered and possible exposure to tuberculosis noted, students were given intracutaneous tuberculin tests, stereoscopic roentgenological examination of the chest and, when the latter revealed tuberculous infiltration of the lung, physical examination.

TABLE I

Results of the Tuberculin Test in College and Medical Students

Students	*Number tested*	*Reacted to tuberculin*
		PER CENT
COLLEGE		
First year	64	84.4
Second year	68	80.9
Third year	67	92.5
Fourth year	37	83.8
Total	236	85.6
MEDICAL		
First year	99	84.8
Second year	103	94.2
Third year	126	96.0
Fourth year	111	98.2
Total	439	93.6

Results of the tuberculin tests of 236 premedical and 439 medical students are shown in Table I. There was no continuous increase in successive classes of the number of premedical students who reacted to tuberculin, variations being doubtless dependent upon the small number in each class. The percentage of premedical students that reacted to tuberculin was 85.6 per cent. The number of medical students of the first year who reacted was approximately the same, namely, 84.8 per cent. In the second and third year classes the number who reacted was higher, and in the fourth year it reached 98.2 per cent. The continuous increase in the frequency of infection during the medical course corresponds with the increasing number of tuberculous infiltrations found by roentgenological examination.

TABLE II

Results of Roentgenological Examinations of College and Medical Students

Students	*Number given roentgenological examination*	*Number with latent apical tuberculosis*	*Number with manifest pulmonary tuberculosis*
COLLEGE			
First year	78	1	1
Second year	79	3	0
Third year	81	3	0
Fourth year	41	2	0
MEDICAL			
First year	98	3	1
Second year	103	12	0
Third year	129	14	4
Fourth year	122	16	9

Tuberculous Lesions Found

Table II shows the result of roentgenological examination of 731 medical and premedical students arranged in classes. Calcified nodules in lungs or lymph nodes represent tuberculous infection, usually acquired in childhood. Their opacity and sharp definition distinguishes them from the diffuse lesions that are listed in the table as latent apical tuberculosis and manifest tuberculosis. They are doubtless in process of healing but their presence does not exclude the occurrence of progressive tuberculosis.

Calcified nodules of the lungs or the adjacent lymph nodes without other demonstrable tuberculous lesion were found in 44 of 279 college students or 15.8 per cent and in 79 of 452 medical students or 17.5 per cent. In ten of 45 instances of latent apical tuberculosis in medical students and in three of fourteen instances of manifest pulmonary tuberculosis in the same group, there was associated tuberculosis of the tracheobronchial lymph nodes.

With the lesions designated as latent apical tuberculosis there have been no symptoms of tuberculosis, and physical examination has revealed no physical signs. The number of these lesions has been practically the same in students of the four premedical classes and of the first year class in medicine. They increase in number considerably in the second year and slightly in the two subsequent years.

Students with manifest pulmonary tuberculosis have had symptoms such as cough, hemoptysis, fever or loss of weight. Significant physical signs were rales, impaired resonance and restricted movement over the site of the lesion. Only one premedical student with manifest pulmonary tuberculosis was found.

One instance of clinically manifest tuberculosis was found in the first year medical class and none in the second year. In the third year class, however, there were four instances of pulmonary tuberculosis accompanied by symptoms or physical signs and in the fourth year class there were nine.

Apical Lesions

In Table III lesions found at the apex of the lung are classified in accordance with their extent. Shadows of doubtful significance, designated as suspected apical infiltration, were found in a considerable number of medical students, though it is uncertain whether these are due to tuberculous infiltration. It has been considered desirable to reexamine students with these anomalous shadows at repeated intervals.

Table III

Analysis of Apical Lesions

	Number given X-ray examination	*Supraclavicular apical infiltration*	*Apical infiltration extending below the clavicle*
College			
First year	78	1	1
Second year	79	3	0
Third year	81	3	0
Fourth year	41	2	0
Medical			
First year	98	3	1
Second year	103	12	0
Third year	129	12	6
Fourth year	122	12	13

In about 3 per cent of college students there was infiltration limited to the area above the clavicle, whereas 8.6 per cent of medical students had similar lesions, their number increasing from 3 per cent in the first year to 10 per cent in the fourth year. In some instances opaque salients project below the border of the second rib, and in all others there were soft scattered shadows throughout the area above the clavicle.

Conspicuous pulmonary infiltration extending below the clavicle was not found in students of the first two years, but occurred in 6 medical students of the third year and in 13 of the fourth year.

The number of young adults with apical lesions of tuberculosis increases gradually with increasing age, but the incidence of these lesions in medical students, increasing rapidly in successive years of the medical course, with astonishingly high incidence in students of the fourth year, indicates that they are peculiarly subject to grave tuberculous infection.

Further Study Indicated

The results of this investigation, confirming as they do, previous observations made at various medical schools concerning the development of clinical tuberculosis in medical students and internes present a problem that requires further study. While the treatment of the individual patient differs but slightly from any other individual with a similar tuberculous lesion the cause of the high incidence of tuberculous disease in this group must be sought for and prevented.

"Tuberculosis in Medical and College Students" —H. W. Hetherington—F. Maurice McPhedran —H. R. M. Landis—Eugene L. Opie—Archives of Internal Medicine, Nov. 1931.

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources — We Insure Only Ethical Practitioners

David Jacobs, Manager — *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. — Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.

BALTIMORE, MARYLAND

W.T. ROCHE

Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 — YOrk 0901

18th at Gilpin

INTRODUCTORY OFFER TO DOCTORS

250 Letterheads, 8½"x11"
250 Envelopes, 6¾ Size
250 Statements, 6¼x6¾

$5.00

All neatly printed in black ink on 20-lb. Hammermill Bond. Samples on request. This special price can be made only when check accompanies order.

THE MILES & DRYER PRINTING COMPANY

1936-38 Lawrence St. — DENVER — Telephone KEystone 6348

GUARD HOMES and OFFICES

Against Dust, Insects and Drafts

WITH

MONARCH METAL WEATHERSTRIP

A. W. Hall, Mgr.

809 South High St., Denver — Phone PEarl 3817

Monarch Is the Only Weatherstrip That Is Adjustable

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. B. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D, Univ. of Colo School of Medicine and Hospitals, Denver

Coming Meetings:

Regular quarterly meeting of the Colorado Hospital Association, Boulder, Colorado, Friday, July 8.

American Hospital Association Annual Meeting—Detroit, Michigan, September 12-16.

American College of Surgeons Annual Meeting—St. Louis, Missouri, October 17-21.

Colorado Hospital Association Annual Meeting—Colorado Springs, Colorado, November 8-9.

* * *

Nurses' Unemployment

THE committee on Unemployment of Nurses has made its report. The report of the sub-committee was unanimously adopted by the committee as a whole, and it was referred to the next meeting of the Colorado Hospital Association and also to the special duty group of the nurses for final action. The report follows:

That in 1920 there were 2,116 graduate nurses in Colorado, and in 1930 there are 2,928 which is 38 per cent increase in graduate nurses while the population of this same period for the state has increased only 10 per cent.

In Colorado in 1913 there were 446 student nurses in fifteen schools of nursing, in 1920 there were 661 students in twenty schools, in 1927, 953 in twenty-one schools, which is an increase of 113 per cent students in training from 1913 to 1920 and an increase of 132 per cent from 1920 to 1932. The population of the state at this time increased only 21 per cent.

From a study of the graduate nurses on call at the registry and the number of calls received during the first five months of 1932, it was found that there were only one-third enough calls to provide work; or stating it another way there are two-thirds too many nurses for the number of patients using graduate nursing service at the present time.

In order to relieve unemployment among graduate nurses and to aid hospitals to maintain a good nursing service and at the same time decrease the number of students now being enrolled in Colorado schools of nursing, the Board of Directors of the Colorado State Nurses' Association endorses the plan of employing graduate nurses in hospitals for $35.00 per month, board, room and laundry. The hours of duty not to exceed forty-eight hours per week with one full day off each week.

Since this remuneration does not compensate a professionally trained woman for her services and since schools of nursing are equipped to give further education without greater expense, we would therefore recommend that nurses employed under this plan be placed as advantageously as possible with regard to clinical experience and be given organized instruction of at least two hours per week on some subject of educational value to them.

The committee feel that this recommendation is only a temporary measure necessitated by the present economic depression and that some specific constructive step should be taken to decrease the continual flow of new graduates into an already over-crowded profession.

* * *

ON FRIDAY, April 29, at 2 p. m., a joint meeting of committees from the State Nurses' Association, State Medical Society, and the Colorado Hospital Association, was held at the Colorado General Hospital to discuss the very serious problem of nurses' unemployment. Miss Louise Kieninger, Director of Nursing at the University of Colorado School of Medicine and Hospitals, presided at the joint session.

Mrs. Dorothy Conrad, Supervisor of the Visiting Nurses' Association, presented some interesting figures obtained from reports made at the spring meeting of the American Nurses' Association, held in San Antonio recently. Mrs. Conrad stated that if no new nurses were graduated for ten years there would still be plenty of nurses to care for the sick people in this country. At the present time some 25,000 graduates are added to the total in the nursing profession each year.

According to a chart made up by Dr. Mae Burgess, who is in charge of the Grading Committee of the American Nurses' Association, there was in 1900, one nurse for each

(Continued on Page Twenty)

WORLD'S LARGEST AND OLDEST MAKERS OF SPECIALLY DESIGNED SURGICAL SUPPORTS

-BARCLEY-

Designing service offers doctors a complete line of surgical supports for every need and purpose, designed and made to the exact measurements and individual requirements of each and every patient—men, women and children. Factory, Newark, N. J.

Denver Office: 210-211 Barth Bldg. Phone MA. 0564

FRANCES VILES, Supervising Corsetiere Res. Phone, FR. 2092

Service rendered in patient's home, hospital or doctor's office, any time, day or night. Just phone and we will meet your convenience.

Our friends of the nursing profession will appreciate our stock garments, SMART-FORM, "true to its name." A smart and distinctive combination, girdle, brassiere and support.

AIR TRANSPORTATION

Safety — Comfort — Speed

Waco and Stinson Aircraft

READY TO GO—WHEN YOU ARE



WESTERN FLYING SERVICE

Municipal Airport, Denver. Ph. York 8273



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721

SAINT LUKE'S HOSPITAL

Under the Supervision of the Protestant Episcopal Church

MEDICAL, SURGICAL, OBSTETRICAL ORTHOPEDIC and PEDIATRIC SERVICES

225 Beds—32 Bassinets

Fully Equipped for Scientific Diagnosis and Treatment
Roentgenologist and Pathologist Constantly Available for Consultation

Established 1881 Pearl St. at Nineteenth
Denver





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course

Woodcroft Hospital

PUEBLO, COLORADO

WOODCROFT HOSPITAL was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address
CRUM EPLER, M.D., Superintendent
H. A. LaMOURE, M.D., Medical Director **F. M. HELLER, M.D., Neurologist and Internist**
P. A. DRAPER, M.D., Resident Physician

THE ROBINSON CLINIC

Cerebral diplegia (Little's disease) is the most common cause of paralysis in children. Older views were that this condition resulted from a brain hemorrhage at the time of birth, but we now understand that the pathology of this condition is a degeneration of the ganglion cells, probably as the result of a severe toxemia or anoxemia. Children who have brain hemorrhage at birth practically always die.

The chief symptoms of cerebral diplegia are, weakness of all muscles of the body, spasticity, and some mental degeneration. Walking and talking are the chief activities that are delayed. These children are more intelligent than is apparent, and we always find that mental development surpasses physical development.

The treatment consists almost entirely of training. Special exercises and a carefully planned teaching approach will accomplish wonders in many cases. This training should be started as early as possible in the child's life.

Medical therapy has little value except where used to decrease rigidity. Atropine is the best drug for this purpose. Thyroid extract, which is used in many cases, is valueless. Most cases improve without any treatment, but without training cannot go beyond a certain point.



Airplane View
Courtesy Curtiss-Wright
Flying Service

Nervous and Mental Diseases
G. Wilse Robinson, Jr., M.D.
Assoc. Medical Director

G. Wilse Robinson, M.D.
Medical Director
1432 Professional Bldg.
8100 Independence Road
Kansas City, Mo.

Drug and Alcohol Addiction
Paul A. Johnson, M.D.
Internist

The

Presbyterian Hospital

MODERN fireproof building—Telephone, hot and cold artesian water, lavatory in every room—Light, airy rooms—Reasonable rates—every facility for scientific diagnosis and therapy—Fully equipped pathological and x-ray laboratories and dietetic department.

East 19th Ave. and Gilpin St., Denver, Colorado

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING

Under New Management

PHYSICIANS AND SURGEONS HOSPITAL

Medical
Surgical
Obstetrical

2939 E. COLFAX YOrk 1424

Bessie A. Keener, Supt.



A QUIET, restful nook for elderly ladies. Modern conveniences. Artesian water. Fine shade and shrubbery. Day and night nurses. Mild mental cases invited. No tuberculars. Rates very reasonable.

THE McCLELLAND HOME

920 Griffith Lane, Arvada, Colo.

Phone Arvada 533

Saint Francis Sanatorium

Denver, Colorado

Attractively located on an elevation of 5200 feet with an extensive view of the snow-capped Rockies. Within easy access to the city of Denver by bus or carline. Rooms steam-heated with running water and connecting baths. Special attention given to bed patients. Excellent nursing care, service and food. Professional service—Ultra Violet lamp, artificial pneumo-thorax.

RATES $50.00, $55.00 AND $60.00 PER MONTH
Exclusive of medical attention

Operated by the Sisters of Saint Francis

325 KING SPruce 4268 DENVER

BIDE A WEE
CONVALESCENT HOME

Elderly people or those with chronic conditions invited. Home-like surroundings and wholesome table. Rates reasonable. No tubercular guests.

693 South Logan SPruce 7070
Denver

TOY TROPICAL FISH
40 Varieties Reasonably Priced

WATER LILIES POND SUPPLIES
FANCY BREEDING GOLD FISH
Ship anywhere; write for price list.

A Full Line of Aquariums, Aquatic Vegetation and Supplies

CHARLES T. GORE
4524 Decatur St. GAllup 0410



MISS COTNER'S
Convalescent Home

Close to the mountains, yet very accessible. Spacious grounds with beautiful trees and shrubbery. Excellent cuisine. Rates moderate. A real Home where happiness is the order of the day.

Address Miss Cotner or wire
1010 Cheyenne Road
Colorado Springs



Home for Convalescents

You may enjoy all the comforts and privileges in our home exactly as you have had in your own. Clean rooms, well ventilated, with running water. Fine sleeping porches, excellent food, temptingly served. A splendid nurse in attendance. Intelligent and courteous service.

2555 W. THIRTY-SEVENTH AVE.
GAllup 0298 Denver, Colo.



Magnolia Villa

An exclusive and beautifully located private home for elderly. Devoid of institutional features. Possessing a refined and sympathetic atmosphere. Exceptionally wholesome and appetizing meals prepared by a competent dietitian. Rates in accordance with service and accommodations.

MAGNOLIA VILLA
1950 Magnolia Ave. at Montview Blvd.
YOrk 8446-R Denver, Colo.

INVALIDS ELDERLY PEOPLE

DESIRABLE ENVIRONMENT

REAL HOME CARE

147 W. IRVINGTON **GRAY and PALMER** SPRUCE 5758

Mrs. Wilson's Convalescent Rest Home

LOCATED close to the town; quiet residential section of the city. Good home cooking, tray service, bedside care.

Reasonable rates.

3841 FEDERAL BOULEVARD DENVER, COLORADO

ODERINE SANITARY NAPKINS

THE LATEST improvement for particular women who deem it a necessity to be dainty.

A deodorized napkin especially useful in cases of profuse menstruation.

Cartons of one dozen, 25 cents.

ODERINE DISTRIBUTING CO.

226 EMPIRE BLDG. DENVER, COLO.

ARTHUR L. BALDWIN

Certified Public Accountant

TAX COUNSELOR

Fontius Building, Denver TA. 1444

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

NURSES' UNEMPLOYMENT

(Continued from Page Ten)

6,000 persons in the country; by 1910 there was one nurse for each 1,117 persons; in 1920 there was one nurse for each 709 persons; and by 1928 there was one nurse for every 590 persons in the United States. Projecting into the future at the same rate of increase, there would be one nurse for each 365 persons in 1945, and one nurse for each 229 persons in 1965.

Mrs. Conrad also said that Colorado was tenth from the bottom among the states in number of unemployed nurses, and that the average employment per nurse in Colorado was 215 days per year, or about seven months. Allowing for the large number of nurses who are employed the year round, these figures show that a great many nurses in Colorado are working a very small portion of each year.

Dr. Burgess suggested several ways to prevent further overcrowding of the nursing profession:

(1) Use of more graduates and fewer students by hospitals with a view toward:

(2) Ultimately closing more schools.

(3) Allow nursing schools to graduate but one class each year and that class smaller than in the past.

(4) Discourage reciprocity between states.

(5) Establish a forty-eight or forty-four hour week for graduate nurses.

Dr. C. F. Kemper next made a few remarks stating that he had come to the meeting more to find out exactly what the problem was and what suggestions were made to meet it, than to make any suggestions himself. He said further that he believed the Committee should find out how great the oversupply of nurses is, what part of this supply is temporary during the depression, and what the best methods are of attacking the problems in Colorado.

Various phases were discussed by Miss Irene Murchison, Secretary of the State Board of Nurse Examiners, Miss Margaret

HAY FEVER

For Eighteen Years

Pollen Antigens
Lederle

have added evidence each year to their value in the prevention or relief from symptoms of Hay Fever.

Each year an increasing number of physicians have familiarized themselves with the Hay Fever problem and are relieving patients of their seasonal attacks.

Pollen Antigens Lederle are glycerolated extracts. They are uniformly stable so that the original strength of the antigen is maintained for a long period.

Remarkably few undesirable reactions have been reported following the many thousand injections of Pollen Antigens Lederle.

Added to the intrinsic value of the Lederle Pollen Antigens themselves is the convenient form in which they are offered to the physician. Treatment sets containing fifteen graduated doses eliminate the inconvenience of making various dilutions before injection.

Pollen Antigens—*Lederle*

are prepared from the individual pollens found by the physician to be responsible for the attack.

Complete treatment sets (15 graduated doses)—15 vials $12.00

The Lederle Laboratories maintain a Department of Allergy supervised by experts and welcome correspondence on all questions pertaining to hay fever in any locality.

Distributed by

HEALY & OWENS

1400 Larimer Denver, Colorado

LEDERLE LABORATORIES, INC.

New York

PRESCRIBE
KNOX
SPARKLING GELATINE
IN **DIETS** FOR **DIABETES**
LIQUID *and* **SOFT FEEDING**
REDUCING and ANEMIA

KNOX is pure, granulated plain gelatine with 85-86% protein content. Free from flavoring, coloring or sweetening—therefore combines safely and perfectly with fruits, vegetables and other foods for all diets.

KNOX *is the real Gelatine*

Data and Recipe Books on Request

KNOX GELATINE LABORATORIES, 418 Knox Ave., Johnstown, N.Y.

The *only* food-drink licensed by Wisconsin Alumni Research Foundation
to contain Vitamin D



A delicious high-caloric drink recommended for all adults and children . . .

especially for

MALNOURISHED CHILDREN — CONVALESCENTS
EXPECTANT MOTHERS — POST-OPERATIVE CASES
NURSING MOTHERS — HIGH CALORY FEEDING CASES

COCOMALT is recognized as a nourishing, delicious food-drink for everyone. But recommend it particularly during pregnancy and lactation, during illness and convalescence — *whenever high calory feeding is indicated.* For, prepared according to label directions, Cocomalt adds 110 *extra* calories to a glass of milk, increasing its nourishment (food-energy) more than 70%.

Cocomalt provides extra proteins, carbohydrates and minerals (calcium and phosphorus). Children love its chocolate flavor. Comes in powder form, easy to mix with milk—HOT or COLD. Reasonable in cost. At grocers or drug stores in ½-lb., 1-lb. and 5-lb. size.

Free to Physicians

We will be glad to send a trial can of Cocomalt, *free,* to any physician requesting it. Just mail this coupon.

Cocomalt

"Cocomalt is a scientific food concentrate of barley malt extract, selected cocoa, skimmed milk, sugar, whole eggs, flavoring and added sunshine Vitamin D"

ADDS 70% MORE NOURISHMENT (FOOD-ENERGY) TO MILK

(One ounce per glass or cup)

R. B. DAVIS CO., Dept. 43G, Hoboken, N. J.

Please send me a can of Cocomalt without cost or obligation.

Name.....

Address.....

City..... *State*.....

FARES EAST

Lowest in years

		30-Day Return Limit	Oct. 31st Limit
Atlantic City, N. J.		$75.68	$110.09
Asheville, N. C.		62.54	79.45
Baltimore, Md.		71.56	103.62
Boston, Mass.	via Montreal	86.15	117.35
Boston, Mass.	via-Albany or New York	87.80	119.75
Buffalo, N. Y.	via Standard Lines	61.70	89.75
Buffalo, N. Y.	via Differential Lines	60.05	87.35
Chicago, Ill.		49.75	59.65
Cincinnati, O.	via St. Louis	49.64	71.39
Cincinnati, O.	via Chicago	49.75	71.39
Cleveland, O.	via Standard Lines	54.49	79.27
Cleveland, O.	via Differential Lines	53.39	77.67
Detroit, Mich.		51.80	75.35
Montreal, Que.		73.14	103.47
Mountain Lake Park, Md.		63.89	92.15
New York City	via Standard Lines	76.97	111.97
New York City	via Differential Lines	74.77	108.45
Niagara Falls, N.Y.	via Standard Lines	61.70	89.75
Niagara Falls, N.Y.	via Differential Lines	61.06	88.63
Norfolk, Va.		74.86	105.65
Philadelphia, Pa.		73.41	106.79
Pittsburgh, Pa.		59.57	86.66
Purt Huron, Mich.		54.06	78.65
Portland, Me.	via Montreal	90.57	121.13
Portland, Me.	via Albany, N.Y. or Boston	94.90	122.60
Toronto, Ont.		60.49	86.22
Washington, D. C.		71.56	103.62

Similar reductions to many other points. Stop-overs permitted.

Burlington Route

RESERVATIONS

901 Seventeenth St. Phone KEystone 1123

S. R. Drury, *General Agent*
F. W. Johnson, *Ass't General Agent*
DENVER

Meyers, who represented the private duty nurses, Mr. Walter Christie, Superintendent of the Presbyterian Hospital, and by Mr. R. J. Brown, Business Manager of the Boulder-Colorado Sanitarium.

It was brought out by several speakers that if the hospitals were to aid the nursing profession in solving this problem, certain concessions would have to be made to insure to the hospitals that there would not be a shortage of nurses for institutional work as soon as the general economic situation changed. It was suggested that some effort should be made to determine whether the majority of the nurses now classified as unemployed would be willing to work in institutions, how much they would work for, and how long they would be willing to continue such work.

Dr. A. D. H. Kaplan, Dean of the Denver University School of Commerce, who was present at the meeting by special invitation, stated that he believed the situation was no different from that existing in many other lines. He said that it would be necessary for him to know more accurately the factors involved before he could make any definite suggestions, but that cutting down the number of student nurses would be in line with the policies adopted recently by many of the leading schools for other professions.

A motion to have the chairman appoint a smaller joint committee to find out all available facts and figures on nurses' unemployment in Colorado and then to discuss these facts with the hospital superintendents in the light of what is possible for the hospital and what the nurses feel must be done, was carried.

The Colorado Hospital Association Committee appointed by the President. Mr. Frank Walter, to study this problem is made up as follows: Mr. R. J. Brown, Boulder-Colorado Sanitarium, chairman; Sister Sebastian, Mercy Hospital, Mr. W. G. Christie, Presbyterian Hospital; Mr. G. M. Hanner, Beth-El General Hospital, Colorado Springs. Dr. B. B. Jaffa, Denver General Hospital.

The Committee on Cooperation with Al-

NURSES
OFFICIAL REGISTRY

Established to Meet the Community's Every Need in Nursing

Hourly Nursing Service.
Under-Graduate and Practical Nurses Provided.
Positions Filled.

Information on all nursing service.

This registry is endorsed by the Colorado State Graduate Nurses' Association and the American Nurses' Association.

KEYSTONE 0168

ARGONAUT HOTEL



Real Comfort *in a* HERNIA SUPPORT

Perfect retention of the pad plus firm support but with enough elasticity to adjust itself to every body movement, makes this new Camp Belt (No. 44) the most comfortable hernia support on the market. Extra heavy, double weave all-elastic, knitted into groin shape to fit natural body lines and narrow to give it under-abdominal purchase. The peculiar action of the Camp Patented Adjustment operated from the back holds the cup-shaped pad in exact position, preventing shifting and slipping. Perineal straps, also elastic, assist. Adjustable to any degree of rigidity.

CAMP TRADE MARK

Physiological Supports

Sold at all better Drug and Department Stores, Surgical Section, and Specialty Corset Shops. Write for Physician's Manual, Men's Section.

S. H. CAMP *and* COMPANY

Manufacturers, JACKSON, MICHIGAN

CHICAGO
1056 Merchandise Mart

NEW YORK
330 Fifth Avenue

LONDON
252 Regent St., W.

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

MERCUROCHROME
220 SOLUBLE
in
OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

lied Professions appointed by the State Medical Society to consider this problem consists of: Dr. John Andrew, Longmont Hospital, Chairman; Dr. Thomas E. Carmody, Denver; Dr. Robert L. Downing, Durango.

The Committee of the Colorado State Nurses' Association is made up as follows: Miss Louise Kieninger, University of Colorado School of Medicine and Hospitals, chairman; Miss Josephine Ballard, Presbyterian Hospital; Miss Margaret Meyers, Private Duty Nurse; Mrs. Dorothy Conrad, Supervisor of the Visiting Nurses' Association; Sister Ignatius, Mercy Hospital; Miss Irene Murchison, Secretary, State Board of Nurse Examiners.

Miss Kieninger announced that she would at once proceed to appoint a Joint Committee from the above group to investigate all phases of the situation and to make specific recommendations at a later meeting of the Joint Committee. The meeting was then adjourned.

Results of Questionnaire on Hospital Expenditures

THIS questionnaire recently mailed to 102 member and non-member hospitals and sanitariums in Colorado by the Colorado Hospital Association, was answered in whole or in part by over 50 per cent of the institutions questioned. All but two of the larger hospitals replied, while only one of the large sanitariums failed to respond. The results, therefore, are fairly representative and it may be safely assumed that while the addition of figures from non-reporting hospitals would undoubtedly swell the total, they would not affect these totals in the same proportion as the figures from most of the institutions that did reply. Following is a summary of the replies from all institutions:

Total payroll, fifty-five institutions	$3,650,829.18
Total employees, fifty-six institutions	3,496
Total exp. Sup. & Equip., fifty-four institutions	$3,400,266.56
Average per cent spent in Colorado, Fifty-two institutions	88%
Capital Investment, Fifty-one institutions	$23,581,714.35

The value of these figures depends, of

SPENCER SURGICAL GARMENTS BELTS for WOMEN or MEN

With or Without — Ptosis, Hernia or Kidney — PADS or Sacro Iliac Support

SPENCER CORSETS of DENVER

218 EMPIRE BLDG.

Expert corsetieres ready to serve you for either hospital or bed-ridden patients. Call TAbor 6289. No extra charge.

TAbor 6289

Conway's FLORAL SHOP

1064 SO. GAYLORD
PEarl 0622

SUMMER BRIDES

Let us give you an estimate on any wedding decorations and bouquets which will be used in your family.

LET
The WESTERN MESSENGER SERVICE
Run Your Errands



At your service, when you're in a hurry

Phone TAbor 5345

424 18th St.

Denver Colorado

BARGAIN GOLF

NOT A NEW GAME— JUST NEW PRICES OUR INTRODUCTORY OFFER

THINK OF IT!

An 'Annual" for $7.50
Or Week Days 25c, All Day
Or Saturday, Sunday and Holidays 35c, All Day
An 18-Hole Course and NO WAITING

You have wanted a place of seclusion to RELAX from the cares of the day—

HERE IT IS

PRATT RECREATION Inc. RANCH

Out East Colfax—See Sign 7 Miles East of Fitzsimons Hospital; Turn 1 Mile South

PHONE AURORA 347-R3

Horseback Riding Polo

P. S.: Let the Kiddies Ride Horseback While You Golf

Are You Listenin'?



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado Ext.

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter



Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen or Silk. Washable as underwear. Three distinct types, many variations of each.

The Picture Shows "Type N"

Storm belts adaptable to all conditions, Ptosis, Hernia, Pregnancy, Obesity, Sacro-Iliac Relaxations, High and Low operations, etc.

Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia

course, on the uses to which they are put The officers of the Colorado Hospital Association believe that occasions will arise from time to time when these figures will be valuable for publicity purposes. They show beyond question that the purchasing power of these institutions and of their employees is an important factor of the economic life of the state. Over six million dollars is spent in Colorado each year by their thirty-five hundred employees, for we can be sure that 90 to 95 per cent of the salaries paid are spent in this state.

Another point, one which is not brought out in the chart, is the fact that a very considerable sum for the support of several of the larger institutions comes from other sections of the United States, from individuals and groups both religious and non-sectarian who are interested in these hospitals or who may have founded them here to take advantage of our climate. These funds which are paid out in great part for Colorado merchandise and for Colorado labor are funds which would never find their way into this state were it not for these Institutions.

Summaries of the results for Denver, Colorado Springs and Pueblo, are available upon application to the Executive Secretary. Since most of the other reports are from cities where only one or two hospitals reported, figures for the smaller cities will not be given out. This is in accordance with the promise made not to make public the figures for any individual institution.

The Colorado Hospital Association wishes to take this opportunity to express thanks to all those busy hospital superintendents and executive officers who were kind enough to take the time to fill out and return these questionnaires.

WM. S. McNARY,
Executive Secretary.

Midwest Hospital Meeting

The Mid-West Hospital Association held its annual meeting on June 2 and 3, at the Chase Hotel, St. Louis. The meeting was

HAGBERG'S
Convalescent Home

Located in the residential section of the city, adjacent to Cheesman Park. Special attention to diets—tray service—nurses' care.

Reasonaable Rates

1212 Vine Street Denver, Colorado

Jas. H. McKnight M.D. Portia M. Lubchence M.D.

McKnight Hospital

Haxtun, Colo.

Thirty-nine years in the same location

SELLING HIGH-GRADE

COAL, WOOD GRASS SEED FERTILIZER

Honest Weight *Prompt Delivery*

The DeSellem Fuel and Feed Company

PH. TAbor 3205

3463 Walnut St. Denver, Colorado

10 YEARS



Our first announcement of S. M. A.

of PREVENTIVE INFANT FEEDING

In November, 1921, the S.M.A. Corporation announced an epochal development in The Journal of the American Medical Association.

This development was called S.M.A. and resembled breast milk so closely that about 95% of infants deprived of breast milk would do well on it. It was a departure particularly in its preparation of the fats, and it also was a departure because it included enough cod liver oil to be antirachitic.

In offering S.M.A. to the medical profession, S.M.A. Corporation was the first company to recognize the importance of the antirachitic factor by including it in the fat, giving automatic protection. S.M.A. is *still* the *only antirachitic breast milk adaptation.*

The excellent results produced by intelligent feeding of S.M.A. created such a demand that its use is general all over the United States and in many foreign countries.

More than 3 hundred million feedings of S.M.A. have been prescribed by physicians.

A TRIAL SUPPLY of S.M.A. with complete feeding suggestions will be sent to physicians upon request. Infant Record Sheets and weight charts will be included if you say so.

What Is S.M.A.?

S.M.A. is a food for infants—derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar, potassium chloride and salts; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

S.M.A. Corporation

4614 Prospect Ave.
Cleveland, Ohio

437-9 Phelan Bldg., San Francisco, Calif.
64 Gerrard St., East, Toronto, Ont., Can.

ACCEPTED AMERICAN MEDICAL ASSN



COPYRIGHT 1932, S.M.A. CORPORATION

(Attach this line to your prescription blank or letterhead). 23-72



Samples and literature on request.

A FOOD WHICH CORRECTS INTESTINAL PUTREFACTION

LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)

Provides the right soil for the growth of a normal intestinal flora — Nature's method of combating putrefaction.

THE BATTLE CREEK FOOD CO.
Battle Creek, Michigan

Announcing *The Introduction of*

THE STILPHEN
AIR CONDITIONING UNIT

Dependable—Simple—Economical
Particularly adapted for Hospitals—Institutions
Write for circulars illustrating and describing this machine

C. A. Stilphen Engineering and Manufacturing Co.
1129 Eighteenth St., Denver, Colo.
KEysotne 0929
Exhaust Fans for Ventilation



Nature Made It!

ORIGINAL
MANITOU
Sparkling Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

successful and those who attended the programs gained many worthwhile and practical suggestions as to how the hospitals may meet the problems which are confronting them at the present time. The next annual meeting will be held in Kansas City.

Doctors from Colorado who were given recognition in the election of officers for the coming year were as follows: Dr. H. A. Green, Boulder-Colorado Sanitarium, was elected first Vice President. Dr. Maurice H. Rees, University of Colorado School of Medicine and Hospitals, Dr. B. B. Jaffa, Denver General Hospital, and Dr. H. A. Black, Parkview Hospital, Pueblo, were elected to the Board of Trustees.

Miss E. Muriel Anscombe, Superintendent of the Jewish Hospital, St. Louis, is the retiring president of the Mid-West Hospital Association; Mr. J. R. Smiley, Superintendent of St. Luke's Hospital, Kansas City, is the incoming president; and Mr. George W. Miller, Superintendent of the Morningside Hospital, Tulsa, Oklahoma, is the president-elect.

Remember!
Estes Park, September 8, 9, 10,
Sixty-second Annual Session.
Come!

WANTADS

FOR SALE

Office equipment, library, surgical and laboratory instruments of the late Dr. Eugene H. Brown of Pueblo. Material may be purchased either as a whole or in units. For details communicate with the undersigned. Mrs. Julia A. Brown, 221 Van Buren Street, Pueblo, Colo.

BRONZE TABLETS
BENEFACTOR'S MEMORIAL PLATES FOR HOSPITALS
IN STAMPED BRASS OR CAST BRONZE
BRASS AND BRONZE SIGNS
FOR THE PHYSICIAN
SACHS-LAWLOR
DENVER
ESTABLISHED 1881

L. D. DUTCHER Phone 2995-R



DUTCHER AMBULANCE SERVICE
BALLOON EQUIPMENT
INVALID SEDANS
315 West 4th Street Phone 390
PUEBLO

Fine Upholstered Furniture Made to order

Furniture repairing of all Kinds

Henry Meyer
Upholsterer and Furniture Manufacturer
DENVER
538 East 17th Ave., at Pearl St.
Phone TAbor 4087

MODERN AMBULANCE SERVICE *for* MODERN NEEDS



AMERICAN AMBULANCE CO.
YORK 0070 • 1860 DOWNING ST • DENVER, COLORADO

There Must Be a Reason Why

Over FIFTY OF DENVER'S LEADING Furniture Dealers, Upholsterers, Warehouses, Dry Cleaners, Furriers, Rug Cleaners

USE AND RECOMMEND

"ARABIAN"

ODORLESS MOTHPROOF

YOU, TOO, Should DEMAND This GUARANTEED-FOR-LIFE PROCESS

Odorless . . . Colorless . . . Stainless

Will not dry clean or wash out—Only one application necessary

Look for the "Arabian" Sign in Your Dealer's Store. If He Cannot Supply You, Call

Manufactured and Guaranteed by
Arabian Chemical Co.
509 17th St., Denver. Phone MAin 4657

SOAPS *Gets It* TRADE MARK POWDERS

INSTITUTIONAL SANITATION

Hospitals, sanitariums everywhere find that "GETS IT" in its various forms can be relied upon to clean and purify any and every variety of surface in and out of doors.

PAINT CLEANER—For washing woodwork of all kinds, linoleum and floors. Porcelain, white enamel, stoves and frigidaires.

WHITE CREAM SOAP—Made of the purest of material. Will not harm hands. This soap is used by The City and County of Denver for washing painted walls, scouring floors, stained and spotted furniture.

Medicated Hand Soap, Scouring Soap Powder, Auto Soap, Glass Bright Powder and other Famous "GETS IT" products at wholesale prices direct to you.

Phone your requirements—get our prices.

FERRIN SOAP MANUFACTURING COMPANY
1948 LAWRENCE ST. TAbor 8733 DENVER, COLORADO

24-HOUR SERVICE

AMBULANCE *and*
PULMOTOR SERVICE

DAY AND NIGHT PHONE
Main 830

John E. Wylie, Mgr.
112 Exchange Place, Colo. Springs, Colo.

Packard Invalid Sedan
Regular Equipped Ambulance

Graduate School *of* Medicine
THE TULANE UNIVERSITY
OF LOUISIANA
Approved by the Council on Medical Education of the A. M. A.
Post graduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

"Say it with flowers"

Park Floral Co.

Phones M. 1713-1714 1643 Broadway

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5111
DAY STORAGE $5 PER MONTH
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

MUCKLE X-RAY COMPANY
The Only Independent X-Ray Company in the West

Distributors of
Standard X-Ray Company
Buck X-Ray Supplies
Burdick Quartz Lamps and Zoalites (Infra-Red)
McIntosh Physical Therapy Apparatus
Expert Service on X-Ray

1632 COURT PLACE DENVER

COMPLETE
MALPRACTICE
PROTECTION
By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE
AETNA LIFE
INSURANCE CO.
Fred E. Breisch, Manager
529 Midland Savings Building
KEystone 6205

STIMULATING INTEREST WITH MENTAL COMFORT

Small Portable Aquariums for the Bedridden Patient or the "Shut-in"

Adopted by many physicians for the reception room where the patients long wait is relieved through the relaxed interest that the aquarium invariably promotes.

Tropical Fish, when stocked in our aquariums planted with aquatic vegetation, require no changing of water, as these plants produce oxygen in sufficient quantity to keep the water fresh.

Small, dainty, alluring and scintillating in color, these toy fish are brought to you from the tropics of both hemispheres. Live bearing fish that give birth to their offspring. Five minutes after they are born these tiny marvels in color and agility can swim, eat and take care of themselves. You are cordially invited to pay us a visit any evening or all Sunday. Our interesting descriptive folder will be mailed upon request.

CLARENCE A. PETERSON

2436 W. 38th AVE. GAllup 6748-R

MATCHED OFFICE SUITE

IN PERIOD DESIGN

at just 1/2 price

Purchased from a Grand Rapids manufacturer who discontinued his line of office furniture and offered the salesroom samples at exactly one-half the regular prices.

This is a professional man's suite consisting of flat top desk, narrow refectory table, cabinet, carved four-fold screen, swivel chair and arm chair; in carved English oak with deep red leather.

STANDARD PRICE $780.00. OFFERED FOR $390.00

HOWARD LORTON INC.

724-746 SPEER BOULEVARD

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.

When impartial and dependable advice is required in connection with any insurance policy or problem,

See

Max S. Schayer
Insurance Counselor

535 EMPIRE BLDG
TAbor 5563 KEystone 6414

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO ENGRAVERS AND MAP MAKERS
KEYSTONE 5634 -830- 10TH ST.
DENVER, COLO.



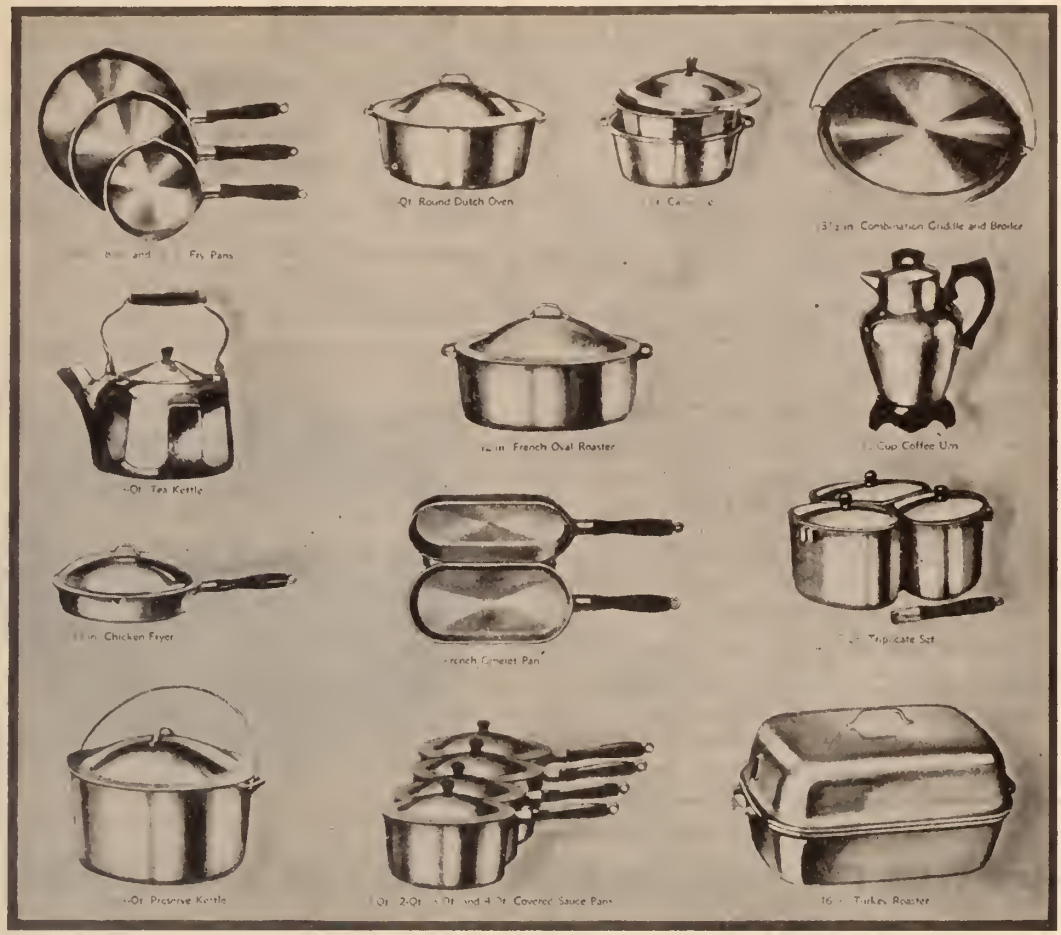
WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of
ORTHOPEDIC APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.
Phone KEystone 2702
Denver, Colo.



The success of your kitchen depends on the method of cooking and the kind of cook ware used. Cook without water, bake without an oven, fry without smoke.

THERE IS AN ART CAST UTENSIL FOR EVERY PURPOSE

ART CAST PRODUCTS, Inc.

Denver's exclusive cook-ware store.

17 SO. BROADWAY, DENVER SUnset 0438

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

CAMP

SURGICAL AND SEMI-SURGICAL SUPPORTS

Maternity **Post Operative**
Convalescing and Ptosis Supports
Abdominal Belts
Sacro-Iliac Binders, Orthopedic Back Splints

Mrs. J. M. Blinn Pfister, *Nurse*
SURGICAL CORSETIERE
Phone Main 7530
Hours, 7 a. m. to 1 p. m.
1515 Glenarm St. **Denver, Colo.**

Office Phone M. 321 Res. Phone M. 4422-R

GEO. LOXAM

Surgical and Invalid Supplies

20 Independence Bldg.
COLORADO SPRINGS, COLO.

Physicians and Surgeons' office supplies, Surgical Braces and Supports, Operating Tables, Surgical Dressings, Enamelware, Rubber Goods, Laboratory Supplies.
Instruments Repaired

Trade discounts to Physicians, Surgeons



COLORADO COLLEGE of PODIATRY

1554 California St., Denver

Bertha DeWolfe, D.S.C., Dean

Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

COLVIN BROTHERS

MEDICAL BOOKS

Ph. MA. 3866. 221 Republic Bldg., Denver

NEW BOOKS:

Marriott—Infant Feeding
Ballenger—Ear Nose and Throat
Buckstein—Peptic Ulcer X-Ray
Crossen—Diseases of Women
Sante—Chest X-Ray

CUSTOM MADE

NU-BONE

SUPPORTING OR FOUNDATION GARMENTS

For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.

RUBY A. BETTS
22 Lincoln SPruce 7998

DENSIN TOOTH POWDER

A Natural Dentrifice

Serves Three Purposes:
MOUTH WASH
GUM HARDENER
TOOTH CLEANSER

A powder that should please the most discriminating.

For sale by all druggists—thirty-five cents

SNYDER LABORATORIES
228 E. & C. Bldg. Denver, Colo.

CORRECTIVE FOOTFITTERS

44 South Broadway Phone Spruce 5276

Denver, Colorado

Corrective shoes with double arch supports for the entire family, fitted by expert and experienced foot fitters from an orthopedic standpoint and according to the type of shoe best adapted to each foot. Eliminate your foot troubles by wearing shoes fitted correctly and scientifically. We co-operate with the medical profession through our licensed chiropodists and trained shoe-fitters, as 90 per cent of our fittings are with people having foot ailments.

Special lasts made for abnormal feet. X-ray service at our Denver store. Write us directly for catalogue and details for ordering by mail or for interview with our traveling representative when in your territory. Mail orders given special attention.

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.



Adjustable Top—Flat or any angle

The
BARBOUR
Combination Desk and Invalid Table

$4.50 Retail Price

INDISPENSABLE FOR THE BEDRIDDEN OR CONVALESCENT

Used in Bed for Eating, Reading, Writing, Sewing, Drawing or Studying

THE FLOYD BARBOUR CO.

2537 West Colfax Avenue Denver, Colorado

Send for descriptive pamphlet.

TRADE **PYRIDIUM** MARK



Phenylazo-Alpha-Alpha Diamino Pyridine Mono-Hydrochloride (Mfd. by The Pyridium Corp.)

THE ORAL ADMINISTRATION of Pyridium in tablet form affords a quick and convenient method of obtaining antibacterial action in treating gonorrhea and other chronic or acute genito-urinary infections. Pyridium penetrates denuded surfaces and mucous membranes and is eliminated through the urinary tract. In therapeutic doses Pyridium is neither toxic nor irritating. Your prescription pharmacist can supply Pyridium in four convenient forms: as tablets, powder, solution or ointment. Write for literature.

B7F5

"COUNCIL ACCEPTED" — ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

MERCK & CO. INC.
MANUFACTURING CHEMISTS RAHWAY, N.J.

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

THE GOLDEN PLUNGE

OPEN ALL THE YEAR AROUND

The Clean and Sanitary Swimming Pool

For Ladies and Gentlemen

Proper Temperatures Maintained for Any Weather

Thirty Minutes from Denver on Fine Highways

Grant Churches, Manager

Phone Golden 266

TAYLOR-MADE
Kenlastic
REG. U.S. PAT. OFF.
CORSETS

ARE MADE TO SUIT EVERY NEED FROM THE LIGHTEST WEIGHT GIRDLE TO THE HEAVIER SURGICAL CORSET

ABDOMINAL BELTS WITH CORSET BACK

SPINAL CORSETS WITH PELVIC STEELS AND SHOULDER STRAPS

A NEW KENLASTIC SEAMLESS STOCKING IS MADE WITH EXTENSION HEEL

CHAS. B. E. TAYLOR
ELIZABETH KENDRICK TAYLOR
204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

ACCEPTED AMERICAN MEDICAL ASSN. Communities and Foods

Hot weather . . . causes diarrhea, vomiting, dehydration and lowered resistance. This is the time to be *sure* about the baby's nourishment. Dryco lends itself to the requirements of the season.

With the increased vitamin D content of Dryco, babies are protected against the dangers of rickets and avitaminosis.

PRESCRIBE
DRYCO

Made from superior quality milk from which part of the butterfat has been removed irradiated by the ultraviolet ray, under license by the Wisconsin Alumni Research Foundation, (U. S. Patent No. 1,680,818) and then dried by the "Just" Roller Process.

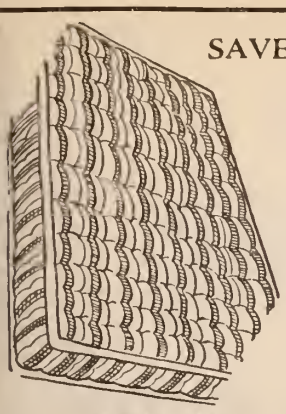
ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED

(Diarrheal diseases in infancy and childhood are the cause of more deaths in early life than all of the infectious diseases combined.)

Dryco is the choice of thousands of physicians in difficult diarrheal cases. It is unsurpassed as a transitional food, since it can be prepared to suit all degrees of solutions and concentrations demanded by the weakened digestion of the sick baby. The baby can be fed under reduced volume and with a highly digestible food without overburdening the stomach or overhydrating the system.

COUPON

Please send special reprints: **Diarrhea—Summer Complaint; Acute and Habitual Vomiting in Infants; Irradiated Milk in the Treatment of Rickets.** The Dry Milk Co., Inc., Dept. C, 205 East 42nd St., New York, N. Y.



SAVE TWO-THIRDS

By having us Renovate your old Mattresses, Pillows, Comforts, Feather Beds and Box Springs like new.

We convert your old Mattresses into new "SPRING CENTERS"

Also Upholstering work done very reasonably.

Union Mattress & Pillow Co.

2640 Larimer Street
Denver, Colorado
Tabor 5989

for Quality
Zinc Etchings
Color Plates - Half Tones

Seeleman-Ehret
Photo Engravers

Tabor 2701 — 1950 Champa Street
Denver Colorado

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically
Special classes for Nurses.

Limited Class Now Forming
Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R — *Elna Hoagland, Pres.* — 3762 High St.

PRESCRIPTION PHARMACISTS

to the members of the

COLORADO STATE MEDICAL SOCIETY

City	Name and Address	Telephone
Denver	R. K. ANTHONY, 4901 Lowell Blvd.	GAllup 0294
Denver	BAIRD Pharmacy, 3850 Federal Blvd.	GAllup 0549
Denver	BROTHERS Pharmacy, 5001 E. Colfax	YOrk 2171
Denver	ESHER Drug Co., 2335 E. 28th Ave.	YOrk 0296
Denver	IMPERIAL Pharmacy, 319 16th St.	KEystone 1550
Denver	McGOWAN Pharmacy, 801 Colo. Blvd.	FRanklin 5391
Denver	MUDGE Pharmacy, 3801 Walnut St.	TAbor 4523
Denver	SIXTH AVE. Pharmacy, 600 E. 6th Ave.	SPruce 9706
Englewood	JOHN T. HEPPTING, 3398 S. Bdwy.	Englewood 744
Littleton	LITTLETON Drug Co., Littleton	Littleton 133
Grand Junction	COPELAND'S Apothecary, 523 Main St.	Grand Junction 39
Salida	WAGGENER'S Pharmacy, Salida	Salida 400

ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company 30
Ambulance Service Co. 30
American Ambulance Company 29
American Medical and Dental Association ..... Cover 2
Arabian Chemical Company 29
Art Cast Products 33
Baldwin, Arthur L. 20
Barbour, Floyd 36
Barcley Corset Shop 11
Battle Creek Food Company 28
Betts, Ruby A. 34
Bide-A-Wee 18
Boulder-Colorado Sanitarium 15
Camp, S. H. and Company 23
Carlson-Frink & Company ..... Cover 3
Chicago, Burlington & Quincy R. R. 22
Children's Hospital 13
Cocks-Clark Engraving Company 34
Cocomalt 21
Colorado Artificial Limb Company 32
Colorado College of Podiatry 34
Colorado Springs Psychopathic Hospital 12
Colvin Brothers 34
Conway's Floral Shop 25
Corrective Foot Fitters 35
Cotner's Convalescent Home 18
Cragmor Sanitarium 16
Cutter Laboratory ..... Cover 4
Daniel-Smith Engraving Company 32
Deep Rock Water Co. ..... Cover 3
Denver Ice and Cold Storage 7
Denver School of Swedish Massage 39
DeSellem Fuel and Feed Co. 27
Dry Milk Co. 38
Dutcher Ambulance Service 29
Ferrin Soap Manufacturing Company 29
Garden Farm Dairy 37
Glockner Sanatorium 13
Golden Plunge 37
Gore, Chas. T. 18
Graduate Nurses' Club 23
Gray and Palmer 19
Hagberg's Convalescent Home 27
Home for Convalescents 18
Hynson, Westcott & Dunning 24
Jones, William 32
Knox Gelatine 21
Lederle Laboratories 21
Lilly, Eli & Company 8
Lilly, Eli and Company ..... between 4 and 5
Lorton, Howard, Inc. 31
Loxam, George 34
Manitou Bath House 4
Manitou Mineral Water Company 28
McClelland Home 17
McKnight Hospital 27
Mead, Johnson & Company 6
Merck & Company 36
Meyer, Henry 29
Miles & Dryer Printing Company 9
Monarch Metal Weather Stripping Co. 9
Muckle X-Ray Company 30
Magnolia Villa 18
Oderine Distributing Company 19
Old Homestead Bread Company 2
Park Floral Company 30
Parke, Davis & Company 3
Peterson, Clarence A. 31
Pfister, Mrs. J. M. Blinn 34
Physicians and Surgeons' Hospital 17
Porter Sanitarium 11
Pratt Recreation Ranch 25
Presbyterian Hospital 15
Prescription Pharmacists 39
Rainbow Trout Ranch ..... Cover 4
Riggs Optical Company 5
Roche Ambulance Service 9
Robinson Clinic 14
Sachs-Lawlor 28
Seeleman-Ehret Photo-Engraving 39
St. Francis Sanitarium 17
St. Joseph's Hospital 16
St. Luke's Hospital 12
Schayer, Max S. 32
Shirley Garage 30
Shirley-Savoy Hotel 35
S. M. A. Corporation 27
Snyder Laboratories 34
Spencer Corsets 25
Squibb and Sons 2
Stanley Hotel ..... Cover 1
Stilphen Engineering Co. 28
Storm, Katherine L., M.D. 26
Taylor, Charles B. E. 38
Therapeutic Bath Institute 24
Trowbridge Training School 34
Tulane University 30
Union Mattress and Pillow Company 39
United States Fidelity & Guaranty Co. 9
Wantads 28
Western Flying Service 11
Western Messenger Service 25
Western Newspaper Union 20
White Flushing Valve Co. 26
Wilson's Convalescent Home 19
Windsor Farm Dairy 5
Woodcroft Hospital 14



FRINK

Golden Flake BUTTERMILK

REFRESHMENT that lingers! Its tempting, zippy tang is a decided aid to jaded appetites and its chemistry an aid to digestion. Frink buttermilk is fresh every day. Drink it regularly yourself and prescribe it as the patient's requirements indicate.

Product of

The

CARLSON-FRINK CO.

MAin 0111

Denver's largest and cleanest home-owned dairy.

It Is Easy to Mistake the Purity of Drinking Water

HEALTH authorities note the danger of thinking water pure when it is merely cold. Dr. Frank Wells Crawford in his valuable and interesting book, "Preventable Diseases," says "that fully 50 per cent of all bowel disorders, including Typhoid and Dysentery, are the direct results of drinking water that is thought to be perfectly pure.

"The thing about drinking water that seems to deceive even careful parents is the false notion that when drinking water comes cold from the tap it is probably pure water. Nothing could be further from the truth. Merely because water is cold is no indication whatsoever as to its purity. The water might be at a freezing temperature, and still be infected with germ life. As a matter of fact, many disease germs actually thrive in ice."

Speaking before an assemblage of doctors and hygienists, Doctor J. C. Williams, health authority in New York City, some time ago labeled impure drinking water to be the most dangerous enemy of health, and the greatest "man killer" in all history.

"When our army was in France," says Dr. Williams, "it was a court martial offense for a soldier to drink any water not previously certified by medical officers, and this was a wise provision. Water, only slightly impure, will kill more human beings than all the ravages of war."

At a season when so many bowel troubles become prevalent, many physicians prescribe both Deep Rock Water and Deep Rock Distilled Water.

Deep Rock Water Co.

614 27th St. TAbor 5121

Denver, Colo.

(Delivered in handy half gallon bottles)

RAINBOW TROUT RANCH

« FISHING POOLS »

"The Fishermen's Paradise"

FLOOD-LIGHTED FOR NIGHT FISHING

All fishing equipment furnished free or bring your own favorite tackle. No fishing license required. Fishing hours 7 a. m. to 10 p. m. Open fireplace accommodations so that you may fry your own fish if you desire.

A TRULY "FAR AWAY MOUNTAIN ATMOSPHERE"

Located three miles south of Littleton on the Colorado Springs Highway and one-quarter mile east of Wolhurst. "Look for Sign."

PHONE LITTLETON 383 R-2 WOLHURST, COLORADO

ToxoK



A Specific Against POISON OAK

PREPARED under government license and supervision in dilute alcoholic solution . . . non-irritating, rapidly absorbed. The antigenic strength of each lot is constant.

The CUTTER *Laboratory*

Established 1897

BERKELEY, CALIFORNIA

THE N.Y. ACADEMY OF MEDICINE AUG 1932 LIBRARY

PROGRAM NUMBER

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 8 AUGUST, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

TABLE OF CONTENTS

Editorials
Justice in Veterans' Relief 309
Vigilance Toward Legislation....309
Secretary of the Interior Criticised in St. Louis 310
Poor Medical Scholarship....310
Medicine in Cuba....311
Our Relations With the Wyoming Society...311
Present Status of Eugenic Sterilization....312
Report of Committee on Costs of Medical Care 312

Original Articles
Medicine in China, William G. Lennox....313
Precocious Menstruation; Three Case Reports Including One with Carcinoma of the Uterus at Two Years, John W. Amesse ...317
Primary Streptococcic Peritonitis in Children, Wilford W. Barber....324

Case Reports
Unusual Appendiceal Abscess, Earl J. Perkins and L. C. Hepp....331

Public Health Notes....331
Library Notes, Book Reviews....333
Medical Biography 334

Secretarial Notes and Comment
Sixty-Second Annual Session, Colorado State Medical Society 335
Scientific Program 335
General Notices 336
General Scientific Exhibits 336
Roentgenological Exhibits 337
Certificates of Award....337
Golf Tournament 337
Special Entertainment 338
Auxiliary Program 338
Hotel Headquarters, Rates and Reservations 338
Medical Societies 338
Obituaries 339
Woman's Auxiliary 340
News Notes 342
Officers, Committees, Secretaries....343

Wyoming Section
Editorial
Rock Springs in Retrospect....344
Original Articles
The Children's Charter, J. C. Kamp....345

Hospital Section
Editorials
The Association's Summer Meeting....Ten
Original Articles
The Need for Training of Specialist Nurses, Bessie Haskin ....Twenty

NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

STANLEY HOTEL, Estes Park, Sept. 8, 9, 10

Make Reservations NOW for Your Annual State Meeting



September is a glorious month in this section of the Rocky Mountains; the bright, sunny days and keen, crisp nights are a combination to hold your enthusiasm at a high level.

Then, the incidental program of golf, saddle horses, trout fishing and motoring over the magnificent new scenic highways in Rocky Mountain National Park, will top your outing to perfection.

ROCKY MOUNTAIN LODGES, Inc.
1730 GLENARM PLACE DENVER, COLORADO

FOOD FOR THOUGHT

THE PUBLIC educated to systematic credit in all mercantile business and none for the professional man have the profession carrying outstanding accounts many times greater than the merchant. Due to no credit control the butcher, the baker, and the candle stick maker are paid while the Doctor waits indefinitely.

Only when overhead or personal expenses press him does he look to his accounts receivable, and finds in many cases the account is uncollectible due to neglect. Handling credits and collections is not just a spare time occupation, but is in itself a profession, which requires training, study, diplomacy and hard work. Most Doctors disliking this end of their business.

No Doctor objects to charity, but considers it a part of his duty when knowing the patient to be worthy of such but he does object to patients demanding the best of service and not paying and the Doctor who draws a credit report on a new patient or forces a patient to pay—is practicing sound medicine—What do you think?

DO YOU KNOW?

HOW MANY PATIENTS RETURN TO YOU FOR SERVICE AFTER THEIR ACCOUNT HAS BECOME DELINQUENT?

The American Medical and Dental Association is the oldest and best established credit and collection firm in Colorado.

MEMBERS REPORT THAT THEY RECEIVE AS HIGH AS 8 TO 1 MORE RESULTS FROM US THAN FROM OTHERS WHO HAVE HANDLED THEIR ACCOUNTS

The Doctors who place their accounts with us for collection are entitled to credit ratings at no charge.

It would take another firm 15 years to duplicate our credit rating information on professional credit risks.

Our collection fees are consistent with the results obtained—the best is usually the cheapest—you get just what you pay for regardless of what it is.

For Greater Collection Results

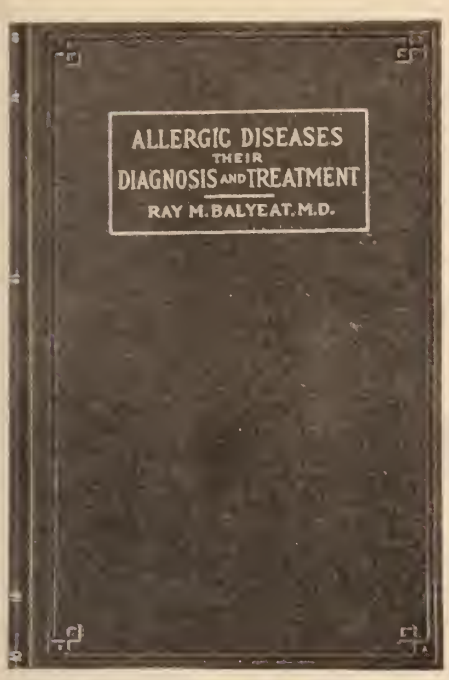
List Your Slow Accounts With Us Now

Credit Ratings *Courtesy Notices*

A Service Not Duplicated

The American Medical & Dental Association, Inc.

NEW (THIRD) REVISED AND ENLARGED EDITION



Balyeat's Allergic Diseases

THEIR DIAGNOSIS AND TREATMENT

A Practical Treatise on Allergic Diseases—Asthma, Seasonal Hay Fever, Perennial Hay Fever, Migraine, Urticaria, and Certain Forms of Eczema and Chronic Colitis.

By RAY M. BALYEAT, M.A., M.D., F.A.C.P.

Associate Professor of Medicine and Lecturer on Allergic Diseases, University of Oklahoma Medical School; Director of Balyeat Hay Fever and Asthma Clinic, Oklahoma City, Okla.

Three hundred and ninety-five pages, 6x9, illustrated with 87 engravings, line drawings and charts, and four colored plates. Third Revised and Enlarged Edition. Price, cloth binding, $5.00.

Prepared primarily for the practitioner and the student of medicine, the fundamental principles of allergy are fully discussed. Detailed methods for determining the cause of hay fever and asthma, and the practical application of the preventive, palliative and curative measures, are clearly given. It is profusely illustrated, which makes it easily understood by one who is not a specialist.

THE MOST IMPORTANT FEATURES of the new edition are the eight new chapters on disease other than hay fever and asthma, due to allergy, namely, migraine, urticarcia, and certain forms of eczema and colitis — syndromes that have long perplexed the medical profession. In these chapters will be found much practical information concerning their diagnosis and treatment.

About 15 PER CENT of the population of the United States sometime in life suffer from some form of allergy. The methods of diagnosis and treatment of allergic diseases are poorly understood by the average physician.

This book offers the physician a guide to the practical methods of their diagnosis and management. The material is arranged primarily to make available to the general practitioner the approved diagnostic and therapeutic procedures dealing with allergic diseases. It is the work of an experienced teacher and a pioneer in the study and treatment of diseases due to allergy.

Tear Off and Mail Coupon

F. A. DAVIS CO., Medical Publishers, Philadelphia, Pa.

You may send me a copy of the new third edition of Balyeat's ALLERGIC DISEASES. Price $5.00.

Name ..... Address .....

THE OLD HOMESTEAD BREAD CO.

offers for your approval

The Formula of

KELPIN

Whole Wheat Bread

26	%	Montana W. W. Flour
26	%	Kansas Patent Flour
26	%	Water (filtered)
5	%	Powdered Milk
5	%	Cerelose
2	%	Salt
4	%	Shortening
1½	%	Diastatic Malt
½	%	Kelpin*
2	%	Honey
2	%	Yeast
100	%	

*Our Kelpin Has a Vegetable Iodine content of .11 per cent.

It is rich in iodides

It is rich in food value

It is well baked and sold fresh

When you need

ADRENALIN

(THE PARKE, DAVIS & CO. BRAND OF EPINEPHRINE, U. S. P.)

ADRENALIN ORIGINAL P.D.&Co. TRADE MARK

Adrenalin is made *only* by Parke, Davis & Company. If you want genuine Adrenalin specify, and insist on getting, the Parke-Davis product.



Adrenalin (Epinephrine, P.D. & Co.) is included in N.N.R. by the Council on Pharmacy and Chemistry of the American Medical Association.

IN allergic shock, in surgical shock, in asthmatic seizures, in sudden circulatory failure (as in anesthesia), in apparent death of the newborn or from drowning —these are times when you want adrenalin action, and you want it quickly.

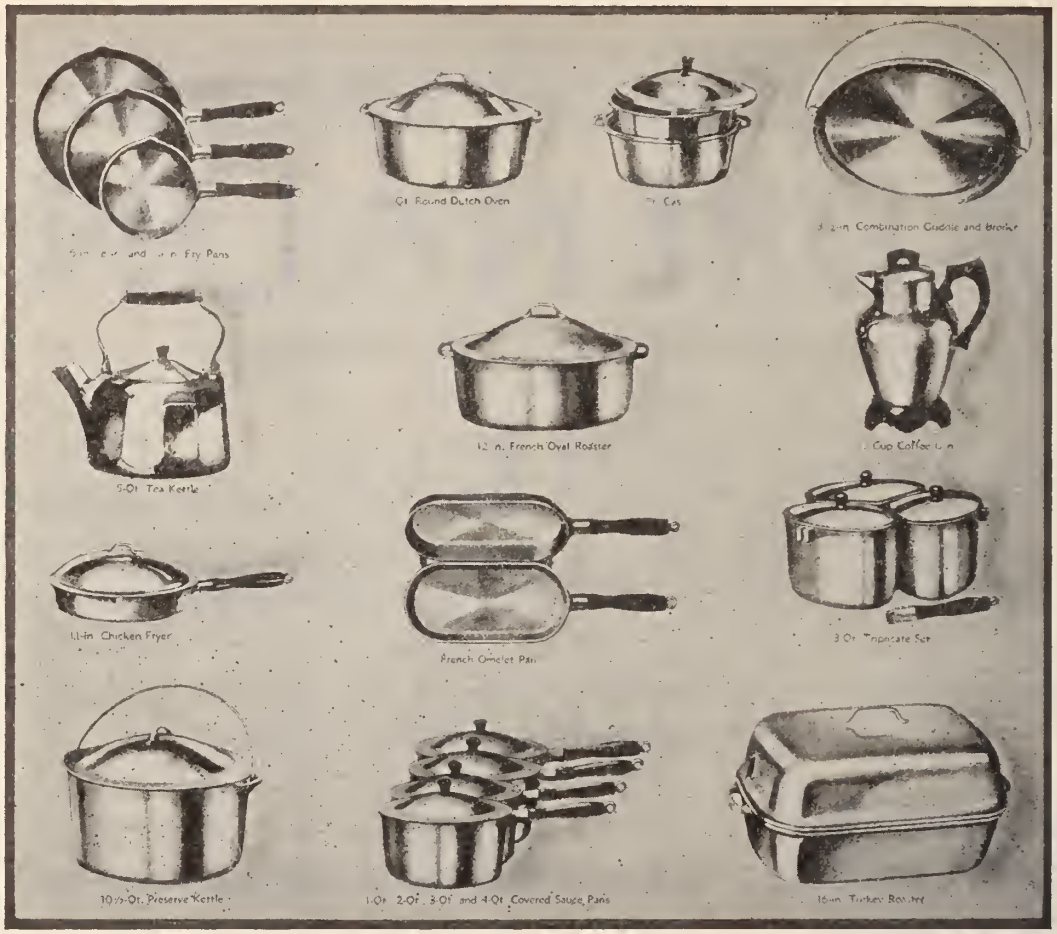
In other less dramatic uses Adrenalin is equally dependable—as in urticaria, in combination with local anesthetics, and for the control of hemorrhage.

The emergencies only serve to emphasize what dependence the practitioner places on Adrenalin, which has been a standard drug for over twenty-five years—backed up now by twenty-five years of research and manufacturing experience.

PARKE, DAVIS & COMPANY

The World's Largest Makers of Pharmaceutical and Biological Products

MAKERS OF BAY'S SURGICAL DRESSINGS



The success of your kitchen depends on the method of cooking and the kind of cook ware used. Cook without water, bake without an oven, fry without smoke.

THERE IS AN ART CAST UTENSIL FOR EVERY PURPOSE

ART CAST PRODUCTS, Inc.

Denver's exclusive cook-ware store.

17 SO. BROADWAY, DENVER SUnset 0438

DOCTOR—

Can You Answer "Yes" to All These Questions?

Do I read my Colorado Medicine carefully every month?

Am I giving preference to Colorado Medicine advertisers whenever possible?

Do I, whenever opportunity offers, advise the manufacturer of a worthy unadvertised product to tell my colleagues about it through a Colorado Medicine advertisement?

Have I used the Service Department of Colorado Medicine whenever I needed a product not advertised and not carried by my local dealer?

Do I attend every meeting of my County and State Medical Societies, support their officers, and give my best to committee work when so requested?

Do I always pay my Medical Society dues promptly?

Am I making full use of my State Society Library, the finest in this part of the country?

Have I submitted a scientific paper at least yearly to my Society or my Journal?

Do I use all the services of the State Society Executive Office and support the work it does under direction of state committees?

If your answer is "Yes" to every question, Doctor, you are practicing a high type of medicine, your professional purchases are wisely made, you have a good practice, your collections are good, you are advancing scientific medicine and public health and you are a PERFECT MEMBER of the Colorado State Medical Society—but not all of your answers were "Yes;" no one can be perfect.

LET'S TRY!

During the Depression

✣ *First Thought—Breast Milk* ✣

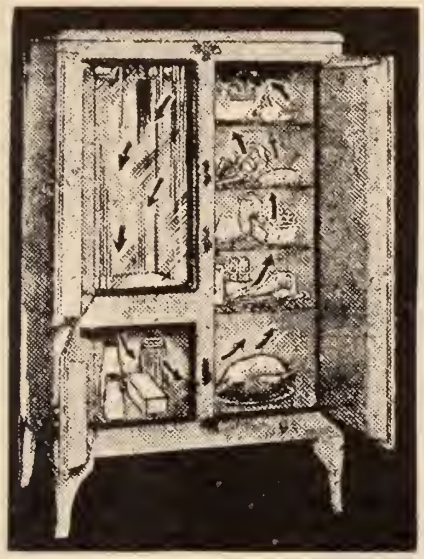
In addition to its many proved advantages over artificial feeding, breast milk during this time of financial stress has the advantage of economy. Breast milk is not only the best milk any baby can have, but it is also the least expensive feeding at the mother's command. It is also the most convenient feeding. It requires no mixing, sterilizing or warming.

WHEN breast milk fails, or when the mother's physical condition makes breast feeding inadvisable, a formula of cow's milk, water and Dextri-Maltose—adjusted by the physician to the infant's individual and changing requirements—is the next choice. Dextri-Maltose is readily assimilable with marked freedom from tendency to cause intestinal fermentation and upset; it is bacteriologically clean, it is supplied in dry powder form not readily subject to contamination. For three decades, its consistent clinical results have been known to physicians. In addition to these advantages, it costs but a few cents a day, so that it is within the reach of almost every mother even during the depression.

As a means of prolonging the infant's term at the breast, Casec (calcium-caseinate) is indicated as an antifermentative in colic and the mild diarrhoeas of the breast-fed infants. Given in small amounts prior to nursing, its effectiveness is promptly manifested in most cases. Detailed literature and samples available to physicians, upon request.

MEAD JOHNSON & COMPANY, Evansville, Ind., U. S. A.

Exponents of Baby Feeding by Physicians



For

Correct Refrigeration

. . . own a modern

ICE Refrigerator

. . . New models keep foods safe and fresh at Lowest Cost

Correct refrigeration . . . preservation of the flavor and wholesomeness of even the most delicate and perishable of foods . . . is found only in an ICE Refrigerator. Refrigeration performs its full duty only when odors and bacteria liberated by foods are carried away. The cold, circulating air in an ICE Refrigerator *does* remove odors and bacteria by depositing them on the surface of the ice block. As the ice melts, they flow down the drain. Many improved features are incorporated in the newest ICE Refrigerator models. Come and see our display . . . or telephone and our display car will come to your home. No obligation.

Liberal Allowance

A Liberal Allowance will be made on your old refrigerator if you buy a new ICE REFRIGERATOR. Have one now on a Small Down Payment. Balance on easy terms. No interest or carrying. Discount for cash.

Denver Ice and Cold Storage Co.

2635 BLAKE ST. PHONE TAbor 1251

"Be Sure It's the DENVER ICE TAbor 1251"

ELI LILLY AND COMPANY

FOUNDED 1876

Makers of Medicinal Products
for Use Exclusively
Under Professional Direction



MERTHIOLATE

An organic mercurial germicide distinctive for its combined germicidal value and tissue compatibility. Supplied in a variety of convenient forms.

Prompt Attention Given to Physicians' Inquiries

Address Principal Offices and Laboratories, Indianapolis

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: W. H. Crisp, M.D., *Chairman*, C. F. Kemper, M.D., C. S. Bluemel, M.D.

VOL. 29 NUMBER 8 AUGUST, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

Justice in Veterans' Relief

THE LAY PRESS is beginning to see the injustice of the handling of the veterans' problem. Such a large portion of this relief program being medical, the matter is of vital importance to the medical profession. A program of remedies for abuses in the veterans' relief, which now costs twenty million dollars a month, has been offered by Talcott Powell, writer for The Cleveland Press:

Raise the compensation payments of men clearly injured in service to a permanent degree, providing they need the money.

Raise the payments to widows, children and dependent parents of men who really did die for their country in the World War.

Remedy the abuses in the emergency officers' pension law.

Compensate only for service-connected disabilities.

Hospitalize only for service-connected disabilities.

Eliminate absurd congressional presumptions of what did or did not happen in the World War or when it ended or what a man's physical condition was when he entered the service. Depend instead upon competent medical opinion.

Place war risk insurance upon the same business basis that obtains in a private company, with the exception that the government shall make no profit out of its soldier insurance.

Treat the veterans of all wars alike.

Make the economic situation of a veteran a controlling factor in any benefit he receives from the taxpayer.

Create a permanent standing Senate Veterans' Relief Committee whose members will specialize in veterans' legislation. No such committee now exists. Such a committee would not only result in more intelligent veterans' legislation, but would make it possible for the public to fix responsibility.

With the growth of bureaucratic government in Washington and the increase of governmental competition with taxpayers, it is gratifying to see the lay press thus take up arms for justice.

Vigilance Toward Legislation

IT IS NOT too early to formulate a plan of activity on behalf of our profession before and during the next session of the legislature. May we all reflect upon the narrow and embarrassing escape last time and trust that our next margin of victory be a safe one!

Our readers will recall that our Public Policy Committee and Executive Secretary worked diligently, but nearly alone. Remember that the anti-vivisectionists, anti-vaccinationists, cultists, and all their protagonists never sleep. Therefore with each spell of their turbulence, our workers will require more general cooperation from the profession at large if our ideals are to be spared serious mortification.

An example which should command our attention is that of the Illinois State Medical Society. As a result of its work, not one of several hundred bills which would have lowered the standards of medical practice has passed their legislature during the past fifteen years. All legislation affecting the practice of medicine and the physicians' welfare is carefully scrutinized, searched for "jokers," and exposed to daylight. The doctors watch their journal for the facts and then work. They bring to bear personal contact with the legislators whenever possible, send letters and telegrams, and circulate petitions. They show that physicians and their followers are concerned with what they do and say and the next election will

be determined somewhat by their intelligent action upon such matters.

Herein lies a lesson in vigilance. Let us not be among those states who now regretfully reflect upon what they might have done. Vicious legislation is more difficult to undo than to prevent. These columns will present recommendations for activity between now and the next legislative session. Loyal cooperation will be anticipated.

Secretary of the Interior Criticised in St. Louis

A RESOLUTION of the St. Louis Medical Society acutely criticizing Secretary of the Interior Wilbur has been published in its bulletin. It insists upon a "thorough and impartial" investigation by the judicial council of the American Medical Association.

The resolution directs attention to "destructive criticism of the medical profession, credited to Dr. Wilbur and undenied by him, and reflecting adversely upon the dignity of the medical profession, upon its maintenance of technical skill and knowledge, upon its conversance of the progress of science in general, of medicine in particular." It further adds that Dr. Wilbur has openly charged our profession with denying the people proper medical and surgical skill and with charging unjustly for that which is rendered.

Surely criticism, adverse and usually unjust or misinterpreted, is sufficiently frequent in the lay press without it arising from within our own ranks. Those familiar with medical leadership realize that every effort is being directed toward the conformation of medical service to the requirements of the present social and economic structure. The task is beset with many obstacles and requires the loyalty of the entire profession.

Destructive criticism by a physician in high official position constitutes resistance difficult to overcome. We trust that future suggestions be of the constructive type and confined to our own organization. However, if one among us errs in such a manner, it shall not pass by unchallenged.

Poor Medical Scholarship

THE APPALLING number of students failing in our medical schools causes us to contemplate the etiological factors. Medical educators appear to be dissatisfied with the mental equipment of their entering classes; this is, of course, a reflection upon preliminary education. The dissatisfaction has been reflected in the altering and increasing pre-medical education required during the past generation.

Dr. Ivan E. Wallin, professor of anatomy in the University of Colorado School of Medicine, has prepared an enlightening paper upon this subject. Dr. Wallin has for years sought and analyzed the causes of poor medical scholarship. About 30 per cent of our freshman students barely pass; approximately 40 per cent flunk their first examination in gross anatomy. Analysis indicates that the majority of these failures follow memorizing rather than learning by understanding. There is a striking lack of curiosity which would naturally make learning a pleasurable task. A deplorable absence of child-like curiosity has been commented upon by Dr. Wallin; what has become of that desire to know? The students' entire educational experience has been based upon the passage of examinations and not upon genuine interest in the subjects.

Even with a biological preliminary education, there is an unbelievable ignorance of the human body. Anatomical and physiological subjects have been stricken from the curricula of most high schools. There is, then, no foundation upon which to build the medical vocabulary and immense amount of advanced detail. The student is bewildered and often enters the examination room on the verge of hysteria and unable to utilize the knowledge he has acquired, especially in the answering of practical questions.

We note in our leading teaching institutions an attempt to give the students the earliest possible practical observations and experience. Admission to the clinics and contact with the patients is greatly appreciated by the underclassmen. Nothing will

so increase their interest and insight; it will necessarily result in improved scholarship.

The local medical school is planning to request each of its candidates for the freshman class to study Harvey's "Simple Lessons in Human Anatomy." Here is a valuable suggestion, applicable also, by way of review, to those of us engaged in the practice of medicine.

Medicine in Cuba

MEDICAL practice is in an unhappy state in Cuba, particularly in the metropolis of Havana. There the development of health insurance societies surpasses any place else on earth. Cuba has some three million inhabitants and about three thousand physicians. Their problems are not complicated by any cultist groups, for there are none. The majority of the physicians have been graduated from the Medical School of the University of Havana which gave excellent instructions until closed about a year ago by governmental authorities because students were reputed to have engaged in insurrectionist activities.

Before the House of Delegates of the American Medical Association in 1927, Dr. J. M. Penichet stated that two-thirds of the Cuban population belong to Spanish Health Societies. If ten per cent of the other third require medical services, Cuban physicians average approximately thirty-four patients apiece.

Half a century ago the Spaniards created a society to provide medical attention for the laboring class. This service was rapidly made to include all social strata and finally prevailed in every province through the founding of more societies of a similar nature. It was for the purpose of freeing the medical profession from the shackles of these trusts that the Cuban Federation of Physicians was created.

One of these health societies has 60.000 members and possesses a hospital department with separate buildings for each specialty and for administration on an extensive park. It also has erected an ornate palatial building at the cost of $5,000,000. Postcards depicting this structure bear the following caption:

"This beautiful palace, of white stone, rich marbles and irons, has recently been erected by the efforts of the 61,000 associates, who, for the small payment of $2.00 monthly, enjoy the splendid sanatorium, clubhouse, school, library, gymnasium, ballrooms, amusements, etc. The furniture is of the Spanish renaissance, like the facade, and is splendid. The canteen is wonderful and the dance hall immense. The entire building is artistically ornate."

In contradistinction to this finery, its physicians receive mere pittance, and the remaining Cuban physicians are fighting for existence. Let us observe this tragedy, assimilate the importance of comparable movements on a smaller scale in our country, and never find ourselves watching corporate control of medicine from the side-lines.

Our Relations With The Wyoming Society

EACH year, at their respective annual meetings, the close union between the Colorado and Wyoming state medical societies becomes more apparent and is more closely cemented. We believe it within the editorial prerogative for Colorado Medicine to assume a fair share of credit for this happy situation.

Wyoming has just adjourned its Thirtieth Annual Meeting. The program was outstanding, the welcome and the entertainment at Rock Springs delightful, the attendance exceptional. We may be proud that four Colorado physicians were included among the program guests.

The Wyoming House of Delegates expressed its belief in the value of joint journalistic efforts by assuming a leading part in the promotion of plans toward a Rocky Mountain Medical Journal, first projected by our own House of Delegates two years ago. Additional interstate and sectional coopera tion was suggested in an invitation by Wyoming, asking Colorado to take part in the 1933 meeting at Yellowstone Park. This

meeting, held each five years, already includes the states of Wyoming, Montana, Idaho, and Utah. The question of our formal participation probably will be laid before our House of Delegates at Estes Park next month.

We bespeak especial attention for the Wyoming Section of Colorado Medicine during the next twelve months, where the papers read at Rock Springs will be published.

Nine members of our Society attended the Wyoming meeting. We hope at least that number from Wyoming come to our Estes Park meeting, which is more convenient to Wyoming doctors than most of our Annual Sessions.

Present Status of Eugenic Sterilization

OUR INSIGHT into the subject of glandular activity and its effect upon our physiology and conduct has been greatly enhanced during recent years. The benefits of glandular therapy and surgery upon certain glands have become of increasing importance.

Legislatures not infrequently concede death penalties for sexual crimes, but decry the more humane sterilization operations. In many cases, medical attention is undoubtedly more appropriate than punishment—the usual disciplinary and penal measures invariably failing in the redemption of such criminals.

Twenty-seven states now carry eugenic sterilization laws, California being one of the pioneers, its first law having been enacted in 1909. We notice in a report in the Western Journal of Surgery, Obstetrics and Gynecology, by Dr. H. G. Wetherill, an honorary member of the Denver County Medical Society, that 8,000 operations have been performed in that state. Thus 8,000 potential hereditary lines of mental defectives, sexual perverts, and criminals have been cut off. All of the operations have been vasectomies and salpingectomies except where pathology demanded more extensive procedure.

In our own state, until our legislature enacts and the governor's signature makes effective a law providing for the sterilization of constitutionally psychopathic individuals, such procedure cannot be legally followed. This is the obstacle met by medical men and institutions seeking legal sanction for this means of therapy (not punishment). Legal opinion in California holds that 8,000 operations in a population of 5,677,251 in twenty years is insufficient. But how much greater has been their benefit to posterity than in a state like our own, so far content with conservative and ineffective means of limiting propagation of the unfit. May Colorado soon be added to the list of states who are now proving the wisdom of humane surgical procedure.

Report of Committee on Costs of Medical Care

THE COMMITTEE on the Costs of Medical Care, the origin of which was discussed editorially in the last issue, has completed its fourth year of study. The volumes of the report through 1931 covered three phases of the study. The first will be mentioned here and the other two in subsequent editorials.

The initial inquiry was into the extent of illness and the present resources for its prevention and care. About two per cent of the people of the United States are disabled by illness at any one time, and individuals averaging one to two disabling illnesses annually. The average loss of time from employment, among men and women, is eight to twelve days. School children average over two illnesses with seven or more days of absence. The entire population is thus involved in the problem.

One and a half million people are engaged directly in the care and prevention of illness in this country—more than in any other country on earth. Doctors average one to every 900 of population, but are more concentrated in the larger cities. A more marked unevenness of distribution obtains in the case of hospitals, 43 per cent of counties in the United States having none.

MEDICINE IN CHINA*

WILLIAM G. LENNOX, M.D.
BOSTON

Medical practice in China today is an embryonic recapitulation of the history of medicine. The various forms of healing which have been used throughout the centuries jostle one another in their struggle for the patient's silver. A Flexner-trained specialist competes for patients with a long-nailed practitioner whose methods were already ancient when Hippocrates was young; a patient bears the fresh marks of both intravenous needles (for administration of an anti-toxin) and acupuncture needles (for letting out the imprisoned evil spirits). During the first half of the past year the writer visited more than one hundred hospitals and medical schools in sixty different cities in various sections of China, and hence had opportunity for viewing the present mixture of the oldest and the newest in the art and business of healing.

In spite of the modern medical facilities in port cities, at least 98 per cent of the Chinese must depend, when sick, upon ancient supports. Such may be the ignition of firecrackers or the burning of incense before the local idol. The ancient Emmanuel movements make use of medicinal aid. In some Buddhist temples, on a table before the principal idol, are two bamboo jars, each filled with numbered bamboo strips. One container is marked "inner specialist," or medical, the other "outer specialist," or surgical. If the worshiper-patient decides his is a medical disease, he makes his obeisance before the altar, and then shakes the "medical" holder till a stick falls out. He notes the number on the stick and abstracts from a cabinet on the wall a printed prescription bearing the same number. He takes this prescription to a drug shop and has it filled. In Amoy I went through this procedure and obtained a double handful of assorted herbs, at a total cost of two cents.

Another recourse is to call one of the native old-style practitioners. This doctor elicits the principal symptoms, feels the pulse, and possibly observes the tongue. He writes a shot-gun prescription which calls for various herbs to be steeped and the liquor drunk. The gift, or fee, to the physician consists of food, articles of clothing, eulogistic banners, or more rarely, money.

On various occasions when I encountered one of these medicine men, I requested a drug for the treatment of epilepsy. In this manner a varied assortment of mud-like pellets of pills and herbs was obtained. In several instances the standing of the practitioner was enhanced in my eyes by his statement that epilepsy is a condition difficult to treat and he had no drug which would cure it.

The pharmacopeia is much like the English pharmocopeia of two thousand years ago and makes use of some three thousand materials. Ephedrine is to date the only outstanding contribution. Besides herbs, the flesh and bones of animals, centipedes, earth worms, pearls, the gall bladder of the bear, are prized. A prescription containing the last named may be very expensive. The skull of the million year old Peiping man was uncovered in a region famous for medicine made from "dragon bones." That bones of missing-link animals may have been ground up to cure Chinese stomach aches is a thought to make paleontologists ill.

The prescription is expected to cure at once or another practitioner is sent for. Unless recalled, the doctor makes but a single visit. There is no basis for the oft repeated statement that Chinese pay to be kept well. The patient may ask for a guaranteed cure, in which case the fee is much higher than for an unguaranteed treatment.

It is interesting to observe the adaptations and compromises which are being made. These practitioners of an ancient art have met the menace of modern medicine by adopting certain drugs such as quinine for malaria and arsenical preparations for syphilis. In the larger cities the popular native "doctor" may charge fees as high as those

*From the Neurological Unit of the Boston City Hospital.

of the modern trained doctor. The up-to-the-minute drug shops put up medicine of unknown composition encased in hollow wax balls as large as golf balls stamped in gold and dispensed in a glass-covered box. Moreover, fifteen medical schools of old style medicine are said to be in operation. These are interesting establishments, all lecture rooms, but pretending to teach western as well as old style medicine. They are sponsored by the Chinese drug trade which sees its position undermined by the recent influx of foreign-made drugs.

Over against the million or so native practitioners there are some 5,000 men trained in modern medicine. "Western style" physicians are congregated in the large cities, especially the port cities where the number of paying patients and assurance of physical safety is the greatest. This leaves the smaller cities and the country district almost barren of any modern medical care. However, even in the modern cities of Canton, Peiping, and Shanghai, old style practitioners outnumber those modern trained five to one. In a demonstration area in Peiping where good modern medical service is available free, a survey showed that of persons dying in that area, 25 per cent had a modern trained physician for their last illness, 53 per cent had an old style practitioner, and 22 per cent had no medical aid whatever.

The twenty-three modern medical schools at present in operation are graduating approximately 500 students a year, or 1.2 per one million of the population. The number in Japan is forty-four and in the United States thirty-seven per million. Six of the schools are controlled by missionary societies; eleven by the government, one by Rockefeller gifts, and the rest are proprietary affairs conducted for profit, having classrooms but almost no laboratories or patients. These low grade, large out-put schools are similar to some of those existing in this country not many years ago. In one provincial capital, a city the size of Boston, a provincial medical school was encountered with a stated enrollment of 100 students. The associated teaching hospital contained about twenty beds and two patients. The faculty were nearly all absent from the city, because the Communist army had penetrated to within a few miles. According to Nanking government officials, this medical school had been closed for some time.

Many hospitals, especially in the south, have "apprentice" or "observation" students. The same is true of doctors. Hospital (not medical school) graduates were encountered who had a flock of tuition-paying student assistants about them. This system of medical education was, of course, an accepted method in our own colonial days. There are national laws for registration of practitioners, but in the large areas where national authority is nil, such regulations have no force.

In former years many men received medical instruction in second-grade schools in Japan. Those trained in America or Europe, or in the Rockefeller Peiping Union Medical College, are small in number but large in importance. Dr. J. H. Liu, head of the National Public Health and of the Army Medical Service, is a Harvard Medical and Boston City Hospital graduate. Many of the staff of the National Central Hospital in Nanking and of the National Central University Medical School at Woosung (both first class institutions, though the latter has now been presumably destroyed by Japanese shells) are graduates of Harvard Medical School. Such well-trained men are the hope of China's sick. When in private practice, however, they have to compete not only with the old-style practitioners but with a horde of self-styled practitioners of western medicine. These are persons who have had some contact with modern medicine, as a dresser or a male nurse in a hospital, or, perhaps, only as a cook or gatekeeper. In almost all cities these irregulars outnumber regular medical school graduates, but in smaller communities they are in the ratio of about five quacks to one graduate. The income of these men is derived in large part from hypodermic or intravenous injections of advertised drugs, mostly of Japanese and German origin. The Chinese are accustomed to needling through the acupuncture of their old-style practitioners and

through the wide-spread use of intravenous anti-syphilitic preparations. Among a clientele whose medical ideas, if any, are several thousand years old, degrees of training in modern medicine mean little. The price of the drug is the measure of its value. Except in port cities, doctors of all degrees of quality dispense their own medicines. In spite of the acknowledged superiority of western surgery, practically no surgery is being done outside of mission and a few other well-equipped hospitals. The lack of equipment, of hospital facilities, of professional cooperation, together with the constant menace of blackmail, make any but minor surgery impossible.

Native Chinese medical practice has had no provision for hospital care, yet superficial aspects of western hospitals are being copied. In Canton there is a hostel with space for a thousand poor sick. Patients live in little cubicles containing several board beds and are attended by their friends or relatives. Eight "old style" and two "modern" doctors circulate about, writing prescriptions. Either style does little more than glance at patients, or feel a pulse. There are also a few public dispensaries in which patients can receive native style treatment.

As for modern hospital care of the 400 million Chinese, there are several hundred institutions as follows: Approximately 235 hospitals are conducted by Protestant and ten by Catholic missionary societies, nine by Japanese, and perhaps a dozen real hospitals by national or local government. In addition, there is an unknown number of small semi-public or private hospitals. These last named can hardly be called hospitals, as in most instances they are but the doctor's combined office and dwelling with a few beds for guest-patients. The big sheds crowded with wounded and called military hospitals remind one of descriptions of hospitals in the Middle Ages.

For the millions of persons with tuberculosis there are probably not more than 100 sanatorium beds available. For the hundreds of thousands of lepers there are about 200 beds in six small missionary hospitals besides about 1400 beds in asylums where no specific treatment is given.

Backwardness in the care of chronic or hopeless illnesses may be in part attributed to the fact that in China the law of love has not overruled the sterner law of the survival of the fittest. America provides 438,000 beds, of which 45 per cent of all hospital beds is for the mentally ill, but does not believe in a dole for the healthy. China gives able-bodied men a dole in the form of enrollment in the army, but those mentally or physically incapacitated are allowed to die. For the hundreds of thousands of psychotic persons there is but one institution, a former missionary-run asylum which was appropriated by the Canton government. One or two other hospitals have wards for custodial care of the insane.

One cannot view medicine in China without considering missionary efforts, for as regards history, numbers, distribution, equipment, nursing care, and personnel, the mission hospital bears the brunt of modern medical practice in China. Of the 11,700 communities in China large enough to be served by the Chinese post office, 185 contain a Protestant mission hospital. These hospitals average seventy beds in size. The staff consists on the average of three doctors, four graduate nurses, and twelve student nurses. Fifty-seven per cent of the graduate medical staff and 74 per cent of the graduate nursing staff are Chinese. The mission hospitals treat approximately a million dispensary patients a year, a number which is twice the total Protestant Christian population of China. The bed occupancy is only 51 per cent, due in part to the fact that patients will not remain in hospitals during the long New Year holidays. The average days of residence, the ratio of in-patients to out-patients and of return out-patient visits to first visits, is approximately the same as for hospitals in the United States. Each doctor, including nationals, treats an average of ten hospital and fourteen dispensary patients daily.

In China the problem of the cost of medical care is even more acute than in this country. Costs of buildings and of operation

are comparatively cheap. Thus buildings and equipment cost about $900 per bed, the foreign professional staff $45 per bed, and the current budget about $117 per bed. The yearly cost of operation including 5 per cent interest on plant investment, the salaries of the foreign staff and the current budget, is approximately $200 per bed, a figure which is about one-tenth the cost of veterans' hospitals in America. The in-patient day cost, also, is but an eighth or a tenth of the cost in large charitable hospitals in Boston.

In spite of the cheapness of this medical service, when reckoning is made on the basis of the income of patients, hospital care in China is probably twice as expensive as in the United States. This is because of the extreme poverty of the people. The amount which the average family in America spends each year for medical care, $72, is not far from the total gross annual income for a farm family in China. Counting one gold dollar as worth three Mexican dollars, the annual income in China of farm families, and the weekly wage of laborers, is approximately a twentieth that of similar groups in the United States. Furthermore, the Chinese patient bears a larger proportion of the cost of his care than does the patient of the large public hospital in America. In the average mission hospitals 66 per cent of the current budget comes from patients' fees, whereas in the case of the pooled budgets of the Boston City, the Peter Bent Brigham, and Massachusetts General Hospitals, the patient pays but 26 per cent of the cost of his care. In the last decade, Chinese patients have contributed larger and larger proportions of the rapidly increasing hospital costs. That patients are willing to pay such relatively large sums for their care shows that modern medicine has "sold" itself to at least some of the people. It is, however, perfectly evident that life, as represented by modern curative measures, is far too expensive a luxury for the mass of Chinese people to buy.

Practically all mission hospitals are equipped for routine examinations; two-thirds can make Wassermann or Kahn tests, and one third bacterial cultures or x-ray examinations. Of course, the daily problems of administration are comparatively huge. Half of the hospitals have no running water, this precious commodity being brought by buckets, sometimes from considerable distances. In all but a few favored places the hospital must supply its own electricity.

One is greatly impressed with the courage displayed by physicians and nurses, both foreign and Chinese, in "carrying on" in the fact of professional and administrative difficulties and of actual danger. It must be no easy matter to continue work in those disturbed districts where one's means of exit may be cut off by communist or bandit bands, or where one may lie at night and listen to the screams of persons being robbed or carried off for ransom. In many areas, the danger of kidnapping for both foreign and Chinese physicians is a real one.

The diseases encountered in hospitals in China vary with the locality. Infections predominate. Everywhere there is tuberculosis, syphilis, and trachoma. Malaria in the South, typhoid fever and meningitis in the Yangtse Valley and bacillary dysentery in the North seem especially deadly. In country areas wounds from wild animals or from bandits or soldiers prevail. In one hospital the majority of patients had either kala-azar or bladder stones. Neurological conditions, endocrine disorders, and hypertension seem strangely absent. In the rounds of one hundred hospitals, no case of multiple sclerosis was recognized, whereas a neurological ward in Boston usually contains several such patients. The same is true of brain tumor.

Municipal public health and sanitation, outside of port cities, is represented in large part by the removal of dead animals or the sanctioning of burials. There is an energetic national public health service with an ambitious program which looks toward the development of state medicine. Demonstration health areas, with public clinics, have been opened in Nanking and Peiping. Extensive training of midwives is being developed. In Ting Hsien county in north China, the Mass Education Movement is experimenting with a very simple form of medical service (a sort of first—and only—aid)

which is so cheap that even country people can purchase it. These and other interesting plans could go forward if only there could be a period of peace and political security.

Unfortunately high minded efforts are blocked by hard economic facts, principally the twin giants of poverty and over-population. In the face of chronic over-production of lives, people are apathetic towards health measures which would result in more lives and more misery. Death by fever may be preferable to death by starvation.

Though saving of life may not be for China's interest, the conserving of physical efficiency is. This is because the human machine is almost the only machine and sometimes almost the only farm animal one sees in interior areas. One might argue that if medical science is to keep step with economic necessities, the quick and early killing diseases (those of infancy and the epidemic infections) should be allowed to have their way and efforts should be centered in those conditions which cripple but do not kill.

Information obtained from married Chinese medical school graduates by means of questionnaires indicates that they are having children at a rate of seven per family and that death rates among the children are at approximately the same low level as prevails for doctors' children in America. This small group of doctors with its relatively high standard of living, its knowledge of birth control and its lack of need of children for ancestor worship, has more children than "ordinary" Chinese have. Seemingly education in China is not a remedy for overpopulation.

For the sake of the physical and economic welfare and the peace of the Orient, it seems essential that medical science should point the way towards means for the arbitrary control of population. Recent discoveries suggest the possibility that temporary sterility may be produced by the administration of appropriate hormones[5]. This is a glimmer of light in a very murky East.

REFERENCES

[1]Lennox, W. G.: A Self-Survey by Mission Hospitals in China. Chinese Medical Journal (In press).

[2]Lennox, W. G.: The Distribution of Medical School Graduates in China. Chinese Medical Journal, Vol. 46: p. 404. 1932.

[3]Lennox, W. G.: Vital Statistics of Families of Chinese Physicians. Chinese Medical Journal, Vol. 46: p. 277. March, 1932.

[4]Shoulders, H. H.: American Medical Association Bulletin, October, 1931.

[5]Editorial—New Studies in Birth Control—Jour. A. M. A., Vol. 96. April 25, 1931.

PRECOCIOUS MENSTRUATION; THREE CASE REPORTS INCLUDING ONE WITH CARCINOMA OF THE UTERUS AT TWO YEARS*

JOHN W. AMESSE, M.D.
DENVER

Precociousness, either of the mind or of the body, has always been a source of more or less fruitful study; when in a given case the deviation from the normal permanently affects both mental and physical attributes, such premature ripening may engage our attention, not only from the viewpoint of psychology and of endocrinology, but particularly from a consideration of neoplastic disease. From whatever angle it is regarded, the phenomenon of precocious menstruation continues to hold a lively interest for both clinician and pathologist.

Since the first reported instance of this physiological aberration, in the New Hanover Magazine of 1519, numerous contributions to medical literature have discussed such observations, so that for the century ending 1913, Lenz[1] was able to collect 130 cases in which periodic menstruation was established before the seventh year. Of these, forty-three began to flow regularly during the first year and six during the first month; ten of the children became pregnant before the age of twelve. Since the publication of this authoritative monograph, occasional cases, thoroughly verified, have appeared in our clinical reviews, one

*Read before the sixty-first annual session of the Colorado State Medical Society at Colorado Springs, September 16, 1931.

very interesting instance in a girl of two years being reported by our colleague, Dr. Gengenbach[2]. Probably 150 cases in all are scattered through the medical archives of Europe and America. In this connection it should be emphasized that the term "precocious menstruation" implies a periodic and fairly regular flow of blood from the vagina before the age of ten; accidental bloody discharges, seen so frequently in the new born and considered by Cammerer to be "due to ligation of the umbilical cord before the circulation in the pulmonary vessels is thoroughly established" do not constitute true catamenia. Neither do those effusions of blood which may accompany inflammatory invasions, injuries, tumors of the vagina, hemorrhage of the new-born, infections, post-nasal asphyxia or sepsis.

Given a case which meets such requirements, our chief concern, of course, is to discover, if possible, what etiological factors are activating this early expression of maturity; Haskins[3] refers to a case described by Bodd to show the influence of heredity. "The subject began to menstruate regularly at the end of the first year; in her eighth year she became pregnant and gave birth to an infant weighing seven pounds. This infant presented a striking condition of pubertas precox; the axillary and pubic hair were abundant and the mammary glands were well developed." In one of the cases I am reporting herewith, there was undoubtedly an inherited tendency to abnormal growth. The study of these unfortunate children may not, however, reveal such a distinct causal relation as this; they may menstruate for a time and the periods cease while others continue on to puberty and to adult life, unaffected in the slightest degree by their early development. In some, the menopause may appear very early, as pointed out by Taylor[4], and the subjects show marked debility, dying while still relatively young.



Fig. 1. The muscular wall of the uterus and the endometrium including the endometrial glands of the normal uterus of a child, three years of age.

Probably the most important agent concerned in the evolution of these cases and a source which should receive immediate investigation is tumor, commonly malignant, affecting either the genital organs themselves or stimulating endocrine disturbances through involvement of the adrenals or the pineal gland. Precocious menstruation may also accompany hypernephroma and teratoma. Wheelen[5] declares that tumors of the pineal body, usually of the teratomatous type, are found more commonly in males, while neoplasms of the suprarenal cortex, associated with anomalies of sex, are five times more frequent in females. Authorities agree that the chief offender is sarcoma, usually of the ovary, but occasionally involving the uterus or vagina; Kelly[6] declares it may even be congenital. Whatever the site may be, sarcoma and dermoids appear early, usually before the fourth year. Carpenter, in discussing a case of precocious menstruation reported by Lucas[7], calls attention to the possibility of polypoid sarcoma of the vagina as a source of genital hemorrhage and to the necessity for exclusion of such growths in diagnosis. Novak[8] states that "very few autopsies are recorded in cases of early catamenia in which there was no tumor present, either in the ovaries or other glands of internal secretion." This complication is now reported with such in-

creasing frequency that "it would appear that practically all forms of disease in the adult female pelvis may be recorded in infancy" (Edwards[9]).

Much more rarely do we find carcinoma acting as the exciting agent for this syndrome in female children: it may involve the ovary, the uterus or both as in a case reported by Corse[10]. Cancer of the ovary has been described by Brown, Marjolin, and particularly by Weil[11]. Less frequently the uterus is attacked, and in these cases the striking contrast between morbid growths of this organ and the ovary is well illustrated. As a matter of fact, "practically all tumors of the uterus and vagina developing in childhood are malignant;" they develop with extraordinary rapidity, while benign growths in adjacent organs may not cause the slightest disturbance until after puberty. Only a few cases of genuine uterine cancer at this age have been reported, perhaps not more than a dozen in the entire literature. Findley[12] saw a case of adenocarcinoma of the cervix in an infant of six months, in the clinic of Prof. Franz at Berlin, in which a complete hysterectomy was performed. Rosenstein reported an instance of carcinosarcoma of the uterus in a child of two who died fourteen days after operation; Ganghofer's patient, aged eight, died of intercurrent smallpox; Little refers to a case in a girl of fourteen; Joseph Adams[13] describes a case of glandular carcinoma of the uterus in a child aged two and a half years, dying two months after operation. Histologic examination disclosed the growth to fall in the group of cancers arising from the glandular epithelium of the corpus. Glockner[14] also reviews at length the history of a girl of seven suffering from adenocarcinoma of the cervix and Kehrer and Newmann[15] report a further case in the person of a baby of sixteen months. Arthur H. Morse[16] had a patient of ten years showing cancerous invasion of the fundus. Further reports have been made by Steffen, Pick, Laidley, Homans, Wells, Coppee and Tschop. Some idea of the excessive rarity of uterine cancer in children may be gained from the statistics

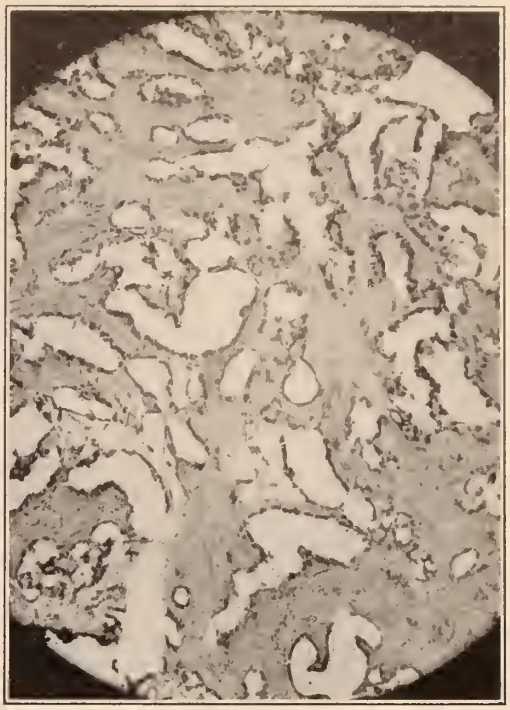


Fig. 2. Papillary projections of the carcinomatous growth infiltrating the uterine wall.

of Koblanck who in a review of 6,354 cases found only two under the age of twenty.

Ewing[17] has found that glandular carcinoma, or malignant adenoma, predominates in the corpus, while epidermoid carcinomata appear more commonly in the vaginal cervix. These growths, as a whole, Ewing maintains, cannot be classed among the tumors which early invade the lymph nodes. Postmortem observations often suggest the striking tendency of the disease to remain localized, either to the uterus or to this organ and the tissue immediately adjacent. In 66 per cent of the fatal cases collected by Knoemer, the lymph nodes were free. Visceral metastases are uncommon.

Regardless of the type of tumor found in these unhappy little mortals, a certain number of them and almost as high a percentage of children with precocious menstruation alone, will present coincidently a series of mental and physical phenomena well expressed by the term pubertas precox. Through stimulation of the controlling hormones, striking changes in the general appearance of the child are manifest; the body hastens to mature; osseous development, es-

pecially of the pelvis, is quickened; evolution of the secondary sexual characteristics may be so rapid that in a year or two the subject presents the figure of a fully developed adult. Mentally, the patient may not be precocious; "psychic evolution does not necessarily follow somatic development," but many of them show phenomenal capacity for the age. An illustrative case of pubertas precox is discussed in a recent number of Colorado Medicine by Eastlake, the subject being a girl of three years and eleven months suffering from ovarian sarcoma.

Symptoms of the growth itself are apt to be most indefinite; the child complains of no pain or unusual sensations in the abdomen, and the first sign of mischief is the enlargement of the hypogastrium. Prognosis of the tumor cases is exceptionally bad, coming to the surgeon as they usually do, very late. Even after operation, the tendency to recur is marked.

Case Reports

Case I: A. G., an infant, aged sixteen months, of French-Canadian parentage brought for examination in February, 1899. The mother reported that a vaginal hemorrhage of four days' duration had occurred the month previous, without other symptoms than marked irritability. There was no history of trauma; the child had always enjoyed good health; it was the first-born of unusually vigorous parents, and the mother had herself begun menstruation very early. Examination showed an infant so abnormally developed that it was almost a small woman in miniature; the hips were broad, the mons very prominent and the breasts resembled those of a girl at puberty; axillary and pubic hair, however, were absent. Mentally, the baby was not precocious, and all of its responses were normal for its age. This infant was followed for ten months, when I entered Federal service. The mother reported that the hemorrhages continued regularly and seemed in every respect to be the menstrual periods. I have no doubt that this was a case of precocious menstruation and regret that I am unable to give the subsequent history of the case.

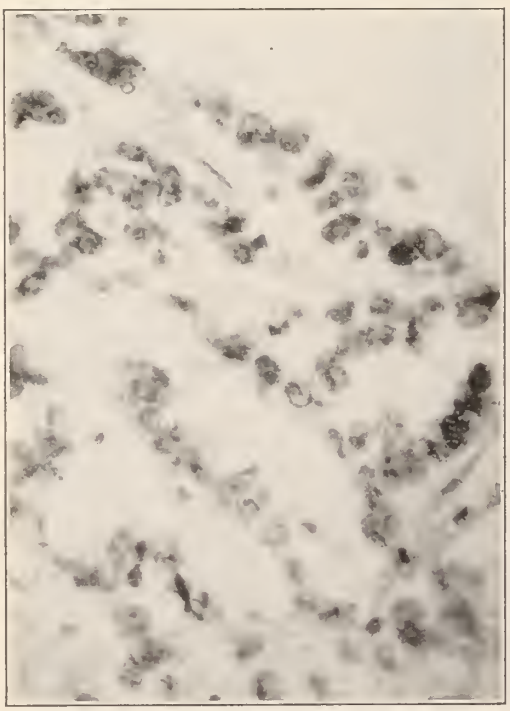


Fig. 3. A high power picture of the carcinomatous growth showing the piknotic nuclei, polymorphism, and immature character of the individual tumor cells.

Case II: R. D., aged nine; white; only child of American parents brought to our office on February 4, 1931, because of vaginal hemorrhage continuing for the past five days, with no indication of illness. There was no history of accident, injury, or unusual physical exertion. The father and mother were well; there was no history of inherited disease; no miscarriages. The girl had sustained no severe infection: measles, chicken-pox, and occasionally catarrhal colds were her only previous ailments. Examination showed the physique of her age with no premature sex development. The genital organs were normal, the hymen perforate but intact and no masses were palpable in the abdomen. Mentally the child was unusually bright, with a high intelligence quotient, but modest, reserved and, in brief, quite like many other children of good breeding one finds in private practice.

Case III: R. M., white child, aged 23 months, of American parentage, referred by Dr. Whittaker of Hayden, Colo., entered the Children's Hospital, Denver, July 6, 1927, with a provisional diagnosis of pelvic

tumor. The history of this baby, related by the mother, is in itself unusual. It was said to be born three months overtime after an extremely difficult labor and weighed twelve pounds. Another infant, still born, much beyond the usual period of gestation, weighed twelve and one-half pounds at birth. There was one miscarriage at three months.

The family history further revealed the father and mother in good health, two brothers and two sisters living and well. Two maternal aunts and one paternal uncle were suffering with tuberculosis, but there had been no contact with the baby. The patient had been breast-fed for fifteen months, its first tooth erupted at three months, and it was walking and talking at one year. This strong, vigorous, precocious infant was well up to January, 1927, when, in the seventeenth month, it developed parotitis. There was a definite history of exposure to mumps several weeks before. Coincident with the invasion, there was a hemorrhage from the vagina which continued for three days. Recovery from this infection was complete in the usual time, but the hemorrhage from the vagina recurred at twenty-eight day intervals until May, when the baby contracted measles and was extremely ill. From that time until admission the bleeding was irregular and she complained bitterly on defecation and urination. Four days before entering the hospital Dr. Whittaker had catheterized her and obtained one and one-half pints of urine, clear and apparently normal in all respects. The child had not voided since. but cried continually, was unable to sleep, and was manifestly in great distress.

Examination showed a pale and greatly emaciated baby, crying feebly, with thighs drawn up and presenting a tumor of the abdomen, hard and symmetrical, filling the hypogastrium and extending two finger breadths above the umbilicus. The chest was entirely negative with the exception of noticeably weak cardiac action; the tonsils were enlarged and the cervical glands palpable. There was no development whatever of the secondary sex characteristics. Laboratory studies showed 3,650,000 red cells,



Fig. 4. A section of the ovary including a large size follicle.

21,600 leucocytes of which 77 per cent were polymorphonuclears, 22 per cent lymphocytes and one per cent large mononuclears; hemoglobin, 60 per cent; bleeding time, three and one-half minutes. There were frequent, involuntary liquid stools, greenish in color, without odor and free from blood. The patient was immediately catheterized, but with considerable difficulty, on account of an external urethral obstruction, and thirteen ounces of normal urine withdrawn without the slightest cessation of pain and discomfort and very little, if any, diminution in the size of the tumor. Rectal examination under gas anesthesia showed a hard, smooth, unnodulated mass low in the pelvis, pressing heavily toward the symphysis.

Subsequent catheterization became so trying to both the house staff and the patient that Dr. T. Leon Howard was requested to undertake it. Dr. Howard cystoscoped the baby and reported that, because of a mass raising the bladder trigone it was impossible to view more than the fundus. The organ was enormously dilated, with apparently normal mucosa, and the urethra much elongated. With these findings, Dr. Cuthbert

Powell was asked to assume management of the case. On July 9, two days after admission and following suitable preparation, laparotomy was performed by Dr. Powell, who found an apparently malignant growth about as large as a medium sized grapefruit, between the bladder and the rectum, involving the uterus to which it was firmly adherent. The tumor was grayish white, rather soft, moderately vascular and could only be removed fractionally. The operation was completed in fourteen minutes and the child seemed to have sustained very little shock; it was able to take nourishment in a few hours and under small doses of codein, secured the first sleep for many days. The wound healed well, but on the third day there was noted a bloody vaginal discharge, very foul, which appeared intermittently until the seventeenth post-operative day when the baby, against advice, was removed to its home by the parents. It died of exhaustion two weeks later and a postmortem was permitted. Dr. Whittaker removed the pelvic organs and forwarded them to the laboratory of the Children's Hospital, but unfortunately the tissues were not properly preserved and examination could not be carried out.

Of the material removed at operation, however, Dr. Ward Burdick, late pathologist of the hospital, gave the following report:

"The specimen submitted consists of numerous irregular shaped fragments of tissue measuring on the average about 3x2x2 cm., and having somewhat the appearance of adenoid tissue. The cut surfaces, however, are white and rather firm, from which oozes a colorless mucoid fluid. Some of the fragments are densely infiltrated with blood. An ovary, 1x1x1 cm., and a portion of fallopian tube are included in the specimen.

Microscopic examination of the tumor: The specimen consists of a rather prominent stroma of trabecular bands of loosely arranged new fibrous connective tissue encompassing numerous nests, strands, and papilliform acini of large columnar to cuboidal epithelial cells. These cells show marked hyperchromatism and many typical as well as atypical mitotic figures are seen. In many instances showers of these epithelial cells have invaded the stroma. In some parts the fibrous stroma gives place to myxomatous tissue. The vascular supply of the tissue is by means of quite thin walled, apparently recently formed capillaries.

Diagnosis: Papillary adenocarcinoma.

Microscopic examination of ovary and tube: The ovary presents a picture of hypertrophy especially as to the graafian follicles, which are generally quite mature. The tube shows nothing unusual."

BIBLIOGRAPHY

[1]Lenz: Arch. of Gynak; 99;67;1913.
[2]Gengenbach: Journal Am. Med. Ass'n, Aug. 23rd, 1913.
[3]Haskins: Abt's Pediatrics; Vol. IV; p. 747.
[4]Wesley Taylor: Detroit Medical Journal; October, 1914.
[5]Wheelen: Endocrinology; 9; 351; 1925.
[6]Kelly: Operative Gynecology; p. 743, 1928.
[7]Lucas: American Journal of Obstet.; 76; 522; 1917.
[8]Novak: Mono. Gyn. Obst. 357; 1921.
[9]Edwards: Am. Journal Med Soc.; 133; 49; 1909.
[10]Corse: Trans. Col. Phys. Phila.; 1856-62.
[11]Weil: Bull. Soc. de Chirurgie de Paris; 1860.
[12]Palmer Findley: Abt's Pediatrics; Vol. IV, p. 1234.
[13]Adams: Brit. Journ. Dis. of Children; 13; 2 6; 1916.
[14]Glockner: Zeit. f. Geburtsh u. Gynak; 63; 182; 1908.
[15]Kehrer and Neumann: Monat f. Geb. u. Gynak; 81; 68; 1929.
[16]Morse: Amer. Journ. Obs. and Gyn.; 29; 520; 1930.
[17]Ewing: Neoplastic Diseases, 2nd Ed.; p. 543; 1922.
[18]Eastlake: Colo. Med.; 28; 404; 1931.

DISCUSSION

E. I. Dobos, Denver: I think we are all greatly indebted to Dr. Amesse for the beautiful presentation of this most unusual case. In order to bring up my point, I would like to review one particular type, one particular theory, in regard to the etiology of cancer.

This theory was advanced by pathologists who called our attention to the fact that the cells of the human body, any animal body, live a very short life cycle. They live for a few days, or they live for a few weeks. However, if we take an organ from the animal body and put it in a pneumatic chamber and provide an adequate food supply and adequate provision for it, this organ will live almost indefinitely. I say, "indefinitely;" that might be a slight exaggeration, but we know very definitely that there are records of a great many organs which have survived their original course many times the life expectancy.

The question arises as to what is the reason that the cells live a very short period of time in the animal body, where they have most adequate provision, and live indefinitely in a pneumatic chamber where they can approach food supply

and surroundings nearly as well as they do in the human body. It is hard to assume that any living cell would develop certain faculties in a pneumatic chamber which it does not possess in the animal body itself. The only way that we can explain why perhaps the cells live such a short time in the animal body is that those cells are performing an extremely complicated and difficult function, and such difficult and complicated function can be performed with 100 per cent efficiency only for a very short period of time; and inasmuch as the animal body tries to maintain 100 per cent efficiency under all circumstances, the tendency is to replace that just as quickly as the efficiency drops below 100 per cent. Whether the efficiency of the cell is performed with 100 per cent efficiency or any efficiency at all is rather immaterial. But if the cells in a pneumatic chamber live, and at the same time gradually disintegrate, they lose their degree of differentiation, they lose their function, but they live. But if they live an almost unlimited life cycle, and then they lose their function, lose their differentiation, then we have come a little closer to the point which resembles very well the description of a carcinoma cell. The carcinoma cell performs no function, and the carcinoma cell lives forever. If we assume there might be some agent present under certain circumstances, or the animal might be exposed to certain physical, chemical, or physicochemical injuries which will influence or stop the power of the cell, it deteriorates, it loses its function, but it will live forever. Just what those particular agents are which are able to effect such changes, I am not able to definitely determine, and when Dr. Amesse mentioned in his paper that precocious menstruation is invariably due to malignant growth, I thought it might be worth while turning it around to say that precocious menstruation almost invariably produces malignant growth.

This theory is purely speculative, like most of it, but is rather the logical one, and, therefore, I think worth while considering.

T. Mitchell Burns, Denver: I wish to congratulate Dr. Amesse on his very excellent paper. It opens up a big field in reference to what causes menstruation, a subject over which at present there is much controversy. Normally, it is considered that the anterior pituitary activates the ovary and then the ovarian hormones activate the uterus, which results in the building up of the tissues, if pregnancy does not occur, break down and menstruation results.

Some hormone, probably of the anterior pituitary, holds back puberty until body growth has reached sufficient maturity for maternity.

It seems to me that some hormone or chemical compound is produced by the tumor and that it activates the ovary which in turn causes the change in the uterus and menstruation or that the tumor hormone acts on the anterior pituitary which in turn acts on the ovary, etc. The latter seems the more plausible as the anterior pituitary growth hormone is over-active as shown by the general body development of these children.

I do not believe that the menstruation caused the cancer, rather that the effects of the cancer resulted in the menstruation as it does in the other abnormal growths.

The following information obtained since the preceding discussion substantiates my conclusions:

In malignant diseases the anterior pituitary hormone is probably increased in all cases and is known to be present in 15 per cent of cases in sufficient amount to give the Aschheim-Zondek reaction (Zondek). Thus the occurrence of precocious menstruation in cases of neoplasm is apparently explained.

To combat this over-activity of the anterior pituitary, patients with advanced cancer are being treated with posterior pituitary by Susman (Brit. M. J. 1931, II, 794.) with some regressive changes and seemingly prolongation of life.

F. P. Gengenbach, Denver: About eighteen years ago at the Pediatric Section of the A. M. A., I reported two cases of precocious menstruation, neither of which showed any malignancy of the sexual organs. The first case was one which came in because of a limp, and which proved to be a case of tuberculosis of the hip. This girl started to menstruate when she was seven months old. The second case was a case which I followed along practically from birth, and she started to menstruate at ten months of age. That child is still living in Denver, in her late teens, and as I said before neither one of these children developed any malignancy, and as far as I know have no growth in the pelvis. So that one does sometimes see these cases of precocious menstruation starting very early in life. Both of these children menstruated very regularly without any real pathological symptoms.

Tuberculosis in Children

The Child's Bill of Rights states that there shall be no child in America that does not live in hygienic surroundings. Little progress has been made in attaining this ideal so far as tuberculosis is concerned, according to Dr. C. A. Stewart of Minneapolis.

Our present so-called hygienic surroundings practically guarantee that from 25 to 75 per cent of American children will experience a tuberculous infection before being graduated from high school. Our surroundings are unhygienic with respect to tuberculosis due to the presence of unrecognized and careless spreaders of the disease living in our midst. The laity must be convinced of the truth of the slogan "Tuberculosis causes Tuberculosis." They must be made to realize that the disease is preventable. The doctor, nurse, teacher, and all persons dealing with children or with the public should have proof—a certificate based upon physical examination, tuberculin test, x-ray, etc.—that they are free from tuberculous infection.

Bring your wife to Estes Park, September 8, 9 and 10. She will enjoy it, too.

PRIMARY STREPTOCOCCIC PERITONITIS IN CHILDREN*

WILFORD W. BARBER, M.D.
DENVER

This paper represents information obtained in the study of eight cases of primary streptococcic peritonitis, three boys and five girls. It is to be understood that the discussion will deal with a form of peritonitis caused by the hemolytic type of streptococcus. The title "Primary Streptococcic Peritonitis" is used to describe a definite clinical entity or syndrome caused by the lodgment in the peritoneal cavity of the streptococcus, without previous local abdominal infection, break in the continuity, or injury to the peritoneum or any abdominal organ. It does not include cases of peritonitis following acute intestinal lesions such as appendicitis, intussusception, penetrating wounds or other trauma. Neither are the acute eruptive fevers, such as scarlet and measles, which occasionally give rise to septicemia terminating in peritonitis, included. Navel infection of the newly born, erysipelas invading the genitals and traveling inward or upward and involving the abdominal structures; latent or static peritonitis of marasmus, acute and chronic suppurative processes terminating in streptococcic peritonitis, do not give the clinical picture about to be described.

Primary streptococcic peritonitis is not uncommon. It constitutes the need for laparotomy in more than two out of every hundred major surgical operations upon the abdomen in children. It deserves the serious attention of the internist, the surgeon and pathologist because its mortality is nearly 100 per cent, it seems to be idiopathic, and the science of medicine at present has little to offer therapeutically. Its relative frequency should always be borne in mind.

Etiology

There seems to be a definite seasonal influence on the malady. It is seen, most frequently, during the damp cold weather and during epidemics of so-called influenza. Nearly every patient gave a history of a mild head cold or sore throat three to seven days before the abrupt onset of abdominal symptoms. The upper respiratory infection in every instance seemed to have completely cleared before the peritoneal mischief began. In no case were they coincident. One cannot escape the conclusion, however, that there is a close relationship between the nose and throat infection and the occurrence of the peritonitis.

Flexner after careful consideration states, "Primary streptococcic peritonitis is a blood borne infection—a complete autopsy and culture of all the organs of the body failed to show any focus of infection from which the peritonitis could have originated."[1] From this quotation it would seem that Flexner considers the disease definitely and unmistakably primary or idiopathic in origin, the original focus landing in the peritoneum, as an osteomyelitis, starts in a bone without previous injury or discoverable infection in any other part of the body. Since nearly half of the patients in this series showed a positive blood culture at some time during the illness, the organism being identical with that obtained from the peritoneal cavity, there can be little doubt that in many instances the organism could have reached the peritoneum by way of the blood stream.

Against this plausible theory is the lymphatic route of infection which is being championed by German investigators, notably Pribram[2]. He states, "The lymphatic apparatus very frequently becomes diseased after an infection of the tonsils. Hence, the hypothesis that certain micro-organisms have a tendency to localize in the lymphatic system is not to be disregarded. The lymphatic supply of the appendix and of the ileocecal region is often an abdominal portal of entry." By the most unique experimentation and reasoning he shows that mesenteric lymphangitis persists long after the original focus of infection, such as a ruptured appendix has been removed. Following apparent complete recovery from the initial local infec-

*Read before the sixty-first annual session of the Colorado State Medical Society at Colorado Springs, September 16, 1931.

tion, adhesions form, at times far removed from the original site of the inflammation—which shows the possibility of certain bacteria being transported by the lymph stream. His theory explains the early localization and symptoms in the lower right quadrant of the abdomen of nearly all types of primary peritonitis.

Peritoneal infection by way of the blood-stream presupposes that the streptococcus has entered the circulation, leaving no anatomical or pathological changes at the portal of entry. This has been demonstrated in the case of many bacteria. Such a mode of infection, however, would presume a predisposition on the part of the peritoneum for which we have no evidence. On the contrary, it is well known that the peritoneum is very resistant and is endowed with phenomenal defensive properties. Jensen[3] was able to demonstrate streptococci in the blood stream four minutes after injecting them into the peritoneal cavity. The readiness with which anti-toxins, salt solution, and blood from intra-peritoneal transfusion passes through the peritoneum indicates how quickly and thoroughly this organ rids itself of any foreign material. It also suggests the improbability of a few bacteria from a mild septicemia lodging in the peritoneum resulting in peritonitis. Peritonitis is not common in septicemia arising from infections outside the respiratory apparatus or the digestive tube. Even in pneumonia, peritonitis is a very rare complication. A predisposition of the peritoneum is without sound foundation. If there be no predisposition on the part of the peritoneum it is hard to conceive why a metastatic infection of other organs should not occur just as frequently or simultaneously. When multiple infection of other organs does occur, the clinical picture of the general infection stands in the foreground and the peritonitis has lost everything characteristic. It is only for this type of case that blood borne infection is undisputed.

The digestive tract as a portal of entry for streptococcic peritonitis seems most probable. In practically every case of sore throat, or head cold, myriads of bacteria are ingested. The normal oral cavity may shelter among other types of bacteria, the streptococcus. Without a doubt the pharynx and oral cavity constitute the most common entrance to the body for virulent bacteria. Their transmission into the stomach and intestines is a simple physiological process. On numerous occasions we have demonstrated in the stools of bloody diarrheal cases the identical streptococcus as was found on the sore throat which preceded the diarrheal disorder. In the presence of infection accompanied by high temperature the antiseptic and bactericidal properties of the digestive ferments are greatly diminished. The younger the child the less potent are these properties which in a way may account for the greater frequency of this type of peritonitis developing in infancy and early childhood. It is a fact that the normal intestinal wall is practically impermeable to the passage of bacteria. It has also been demonstrated that in certain pathological conditions bacteria may pass freely through the intestinal wall. The higher up the small intestine bacteria are permitted to migrate, because of the diminished bactericidal powers of the digestive secretions, the more likely is infection of the intra-abdominal structures to take place and the more severe are the toxemia, pain, and vomiting.

With the assumption of the intestinal mode of infection, several characteristics of the disease can be satisfactorily explained. The greater frequency of this type of peritonitis in infancy and childhood is based upon the fact that at these ages, digestive disturbances are more common. There is a decided predisposition during this time of life for the bowels to show their sensitiveness to irritating food, parenteral infection or inflammatory reaction to the mucosa itself—which is exhibited by diarrhea, vomiting, and sometimes pain and fever.

Frequently if not always, primary streptococcic peritonitis at the onset shows the symptomatic picture of appendicitis, or at least the symptoms are most marked in the ileo-cecal region at the beginning. This can be explained: It is known that in the cecum a stasis of the intestinal contents takes place. Here, therefore, an accumula-

tion of the causative organisms occurs and they find here also more favorable conditions for their development and multiplication than elsewhere. The appendix has been frequently regarded as the tonsil of the intestine, and being rich in lymphoid tissues, where there are virulent streptococci in the intestine, it represents a favorable site for colonization. That such is the case is further substantiated by the work of Jensen[3] to the effect that in ordinary appendicitis the pneumococcus is the most frequent pyogenic organism present.

If the female genital tract is involved it is probably a contamination from the feces with direct extension through the vagina. Finally, therefore, with the assumption of the oral or pharyngeal cavity, or with the gastro-intestinal tract as the primary portal of entry, the frequency of streptococcic peritonitis in childhood intercurrent with or preceding a sore throat, the ileo-cecal region as a predilection point of early disturbances, and the predisposition of the female sex, would receive a logical explanation.

Comment

The clinical and pathological findings in this small series of eight cases seem to favor the direct extension from the lumen of the bowel into the peritoneal cavity in the vicinity of the ileo-cecal valve. The pathologist in two instances was able to identify hemolytic streptococci from the appendix at once after its removal. Four of the patients had blood in the bowel movements for more than a day before evidence of the peritoneal inflammation became evident. The hemolytic streptococcus was cultured from the feces twice.

The course of the infection and the presentation of symptoms as they developed in each little patient showed a striking similarity. In every instance there was either sore throat, rhinitis, or a diarrheal disturbance. As a rule the nose and throat infection was followed in five or six days by gastro-intestinal symptoms which were soon dominated by unmistakable evidences of peritoneal irritation. In every case there was evidence of pain in the abdomen and distension together with wide spread tenderness most marked over McBurney's point. All vomited and some showed digested blood in the vomitus. Within twenty-four hours fluid could be demonstrated in the flanks. Evidences of septicemia seem to follow within a few hours after laparotomy or about the fifth day if no operation is done. At this time the blood culture is positive and not before. It is probable that septicemia in streptococcic peritonitis is a result rather than the cause of that condition. Septicemia takes place only in the moribund stage of a severe septic process.

In every case the disease began in otherwise healthy children, and in most instances they were almost perfect specimens of health. Their ages ranged from five months to seven years.

Pathology

The character of the pathological findings in the abdomen varies greatly, depending upon how long after the onset they are observed. In the early cases as soon as the peritoneum has been entered a thin serous fluid escapes through the wound. It resembles urine containing a little blood. It is odorless and readily becomes frothy when agitated in the wound by intestinal movement through respiration. The intestines may be as red as raw beef. The greatest reaction is seen about the head of the secum. The adjoining small bowel is finely stippled red or bluish, and all the normal luster of the visceral peritoneum has disappeared. The appendix shares in the process, but is not quite as much involved as the lower end of the cecum. When the bowel is handled it gives the feel of something slippery or oily as though it were covered with a fine film or lubricant. It is just as slippery as rubber gloves dipped in lysol solution. There are no flakes or fibrin adhesions. There is no attempt at organization or glueing together of the various loops of intestines to one another. The omental apron lying over the infected area shows no attachments or protective walling off which is so characteristic in most other types of peritonitis. Both the visceral and parietal peritoneum may be very edematous, resembling an ery-

sipelas involving the peritoneum instead of the skin.

Within twenty-four hours following the onset, the inflammatory process spreads rapidly from the ileo-cecal region in all directions with the maximum and most advanced pathology where the appendix attaches to the cecum. There is a definite typhlitis from which a fulminant diffuse peritonitis develops. Since there are no pseudomembranes, localization is almost impossible and the process readily becomes generalized. Before the end of the second day, the fluid becomes abundant and the bowels begin to show more or less distension with gas. The exudate begins to thicken about the third day and to accumulate about the head of the cecum, duodenum, upper surface of the liver and spleen, and head of the pancreas. About this time large hemorrhagic areas resembling purpura may be seen on the peritoneum. The small stippled areas seem to coalesce. The lymphatic glands in the mesentary are distinctly enlarged; those draining the cecal region show the most reaction and diminish in size away from this area. The urine shows pus cells, casts and albumin.

Every case here presented showed pure cultures of streptococci from the abdominal exudate. The examination of the appendix after removal as seen by Dr. Dobos, pathologist at the Children's Hospital, was much the same in every specimen. Quoting from a typical case he states: "The surfaces are clean and smooth. No exudate or hemorrhage is noticed. The cross section shows slight hemorrhagic mottling. Disseminated inflatmmatory foci are seen especially in the serosa and subserosa. The entire wall shows slight increase in leukocytic infiltrations and also reveals interstitial hemorrhages of various sizes. The mucosa seems to be intact. Laboratory diagnosis: acute appendicitis (very mild degree)".

Blood cultures were found positive in five of the eight cases only toward the close of the illness. Whenever possible the cultural characteristics of the bacteria obtained from the abdomen were compared with the streptococci obtained from the blood stream, the throat, the vagina, or the stools in a given case. The organism obtained from each region seemed to be identical in every particular. In every case the leucocyte and differential count was high. The mean leucocyte count was 34,500, and polymorphonuclear leucocytes averaged 93 per cent. Such a formula is helpful in confirming the diagnosis but means nothing from a prognostic standpoint. Where the Schilling count was made, the index was very low and showed a rapidly progressive shift to the left, the mature cells falling almost to the vanishing point if the patient lived for seven or eight days.

Symptomatology

The triad: abrupt onset, abdominal pain, and sudden high temperature, constitutes the most characteristic symptomatology. Very shortly vomiting begins, first of the normal stomach contents; later it may contain bile, and in not a few cases a coffee-ground vomitus giving the chemical reaction for blood is brought up. Palpation of the abdomen, rectal examination, or enemata seem to provoke vomiting in this condition more than in any other. Lavage, medication, or counter-irritants to the stomach region do little to mitigate this distressing symptom; the smallest amount of nourishment or liquid by mouth is promptly returned. The taking of food or drink frequently provokes a paroxysm of severe abdominal pain. Vomiting at the onset is a constant symptom. At first it is propulsive and persistent often continuing until the patient seems exhausted. Between vomiting spells there may be eructations, bringing up of almost a constant stream of acrid material which runs out of the side of the mouth. This substance excoriates the skin wherever it touches and sordes occur on the lips, tongue, and oral mucous membrances. At times it has an offensive odor. In short, vomiting is an outstanding symptom, appearing early, persisting to the end, and nothing controls it.

Pain and tenderness in the abdomen are always present and general. Older children may complain bitterly but have difficulty in localizing it to a given point. The hand is placed across the abdomen below the navel

and a little to the right of the midline; one finger cannot be placed on the most tender spot. The pain may be just as severe and paroxysmal as that seen in intestinal obstruction. At times the distress is so great that the thighs are flexed on the abdomen and the chin brought down between the knees and the child rocks from side to side in this posture screaming in agony, while the hands hold the abdomen in front or on the sides. Frequently the pain is not so severe. It may be constant and accentuated through palpation or movement of the body. Flexion and extension or rotation of the thighs especially on the right side often causes pain. The entire abdomen shows tenderness from the lower border of the ribs to the pubes on either side. As a rule within twenty-four hours from the onset, one part of the abdomen is no more tender than any other. Abdominal rigidity is always present. It occurs early and is a most characteristic sign of the disease. The maximum point of splinting, however, is not so constant. The right rectus muscle and the area extending from the navel to the right iliac crest is most frequently rigid. Points of rigidity in the abdomen seem to shift from time to time. The degree and location of this muscular protection in a crying child is very difficult to determine. If the fingers are placed over the suspected areas and followed inward with expiration between the straining from crying, slight quick pressure will show whether the muscles are stiffened or not. The hands should be warm, if cold the muscles of a normal abdomen may stiffen[1]. Some information is obtained through rectal examination. The examining finger often causes a great deal of pain. Occasionally the upper part of the rectum feels a little firmer than normal and slightly fixed. In most cases, however, the chief point is one confirming the presence of a severe type of peritonitis. The rectum feels larger than normal as though it were distended and has lost all its tonicity.

Distention of the abdomen is peculiarly lacking in the early stages as opposed to most types of acute peritonitis. In the first few hours the bowel seems to assume a spastic state instead of that of ileus. After forty-eight hours tympanites is evident, gradually becoming progressively worse and is a constant finding before death. If the navel is easily everted it becomes ironed out as the abdomen becomes enlarged. If there be a navel hernia, which is not infrequent, inversion of the rupture may give the feel of fluid being forced back into the abdominal cavity. The thin cutaneous covering of the navel often shows redness or other inflammatory changes especially late in the disease.

The temperature is always high. Within three hours from the onset, in a child previously perfectly well, it may reach 106° F. This early rapid rise seems to be one of the most suggestive signs of the disease. In nearly every instance the fever remained constantly above 102°. Marked fluctuation occurs about the fourth or fifth day when septicemia develops, then there may be chills with a steeple-like temperature curve. The hands and feet are frequently cold even in the presence of high fever. Just before death the fever becomes very high; in one instance it rose to 108°.

The facies and the sudden progressive change which comes over the patient connoting impending disaster is seen in no other illness. The eyes are bright and open most of the time; very shortly they seem to sink deeply in their sockets and appear surrounded with dark circles. The expression is one of anxiety and fear. The cheeks are flushed and the area about the mouth is at first white and later mildly cyanotic. The breathing is distinctly rapid, often labored suggesting pneumonia. Cough is conspicuously absent probably because of the pain it provokes.

Evidences of toxemia are never lacking though the distress and high temperature, wide open eyes, and clarity of mind may cause it to be overlooked. It is astounding how clear the mind remains almost to the end. When, however, septicemia obtains the upper hand, convulsions and coma may ensue.

Differential Diagnosis

If primary streptococcic peritonitis has

never been observed, one's first impression is that of lobar pneumonia with abdominal signs. The sudden onset, high fever, rapid breathing, vomiting, and leukocytosis fit in well with the picture of pneumonia. The absence of cough, negative pulmonary findings, including the x-ray, eliminate this disease.

The eight cases here described were operated upon by five different surgeons. Their preoperative diagnosis, with one exception, was general peritonitis following ruptured appendix. The temperature at the onset of acute appendicitis is never so high as that seen in primary streptococcic peritonitis. The pain in appendicitis is more likely to be mild and to gradually increase in severity with gradually localizing abdominal signs. In appendicitis following rupture there is a period of deceptive calm while in primary peritonitis there is a steady progression. Furthermore, the leukocyte count is more apt to be under than over 20,000.

In infancy, bloody diarrhea may give high temperature, leukocytosis, and abdominal pain with distension. In this condition the diarrheal upset is the outstanding symptom. It occurs more in the summer and fall and seldom in the winter.

If the clinical picture of primary streptococcic peritonitis could be properly described, it would be quite unmistakable. We omit the thought of it, and as a result its presence escapes us, because of the abruptness with which the illness begins, the thought of peritonitis does not come to mind.

Should the diagnosis be suggested, much confirmatory evidence is easily obtained. The history of sore throat or head cold occurring about a week before the abdominal symptoms start is so constant a finding that this in itself is very suggestive. The pain comes on as though the abdomen had received some trauma, and coincidentally there is a sharp rise in temperature followed at once by vomiting and in every case the bowels moved frequently for at least two or three hours; after this, constipation is the rule. Streptococci can easily be isolated from the stools. The abdominal findings at the start are not those of appendicitis but of peritonitis. The laboratory report gives a very high leukocyte count with a high percentage of polymorphonuclear cells. A positive diagnosis can be made by drawing a few c.c's. of fluid from the peritoneal cavity with a needle and syringe, a procedure entirely harmless and giving invaluable information.

Prognosis

Every patient in this series died irrespective of whether laparotomy was performed or not. One can only harbor extreme pessimism with such results. The age of the patient, type of drainage, early or late operation, anesthesia employed, or subsequent treatment made no difference. Others have been more successful, however, for reports are extant that one out of ten has recovered following abdominal drainage. Abdominal section in the cases here reported made the patients immediately worse, more uncomfortable, and they died sooner than those that were not operated upon. Nothing seemed to enhance the localization or to stop the spread of the infection. Six were drained, two were not.

Treatment

Since the process is diffuse and there is no definitely discernible intra-abdominal focus or any attempt at localization, the problem of treatment becomes very difficult. It cannot be denied that the abdomen should be opened in every case. The escape of the streptococcic exudate through the abdominal wound can do no harm and might relieve the toxemia. There is always an excellent chance for error in diagnosis. Should the appendix be involved and the source of the infection, it cannot be dealt with or recognized as the seat of the trouble unless the abdomen is opened. Such an error would be unpardonable.

The operative treatment should be supplemented by every effort to support the body in its fight against the infection. Since little or nothing is retained by mouth and causes vomiting and pain, food and drink cannot be given. Glucose solution intravenously by the continuous drip method should be employed. Large amounts of liquid can be absorbed by rectum and from

hypodermoclysis. Anti-streptococcic serum can be used but gave no benefit in our series. The intravenous use of dyes, much lauded as a means of dealing with septicemia and septic processes, may be tried but seems to be without avail. Transfusion of unaltered blood does not give the slightest perceptible beneficial results. Hot stupes to the abdomen seem to cause a more rapid spread of the infection and aggravate the abdominal distension. Continuous cool rectal irrigations with pituitrin hypodermically give temporary relief. Cardiac and respiratory stimulants only prolong the agony.

Summary

1. Primary streptococcic peritonitis is a definite clinical entity that is not uncommon.

2. Swallowed streptococci may pass through the bowel in the ileo-cecal region. It would seem that this is the most likely portal of entry.

3. The pathological process quickly becomes generalized with little attempt at localization, and the prognosis is very bad.

4. Brisk onset, sudden high temperature, with abdominal pain, tenderness, and rigidity, accompanied by vomiting, are the chief symptoms.

5. The disease is frequently confused with lobar pneumonia attended with abdominal signs, with appendicitis and rupture, with acute gastroenteritis, and with pyelitis.

6. Treatment is very unsatisfactory. Abdominal drainage and supportive measures can be tried.

BIBLIOGRAPHY

[1]Flexner: Phil. Med. Journ.; 11, 1019. 1898.

[2]Pribram: Lymphangitis Mesenterialis. Arch klin. chir.; 1926 (Festschrift fur Eiselberg).

[3]Jensen (Quoted by Koennecke: Ueber Pneumokokkemperitonitis): Peitrage zur klinischein Chirurgie; 115, 408-423. 1919.

[4]Lipschutz and Lowenberg: J. A. M. A.: LXXXVI, 99-104. 1926.

DISCUSSION

Leonard Freeman, Denver: I should like to say something, about the form of infection and the way in which infection occurs. Dr. Barber thinks that it occurs through the intestinal tract, and he supports this by some quite good arguments. I do not believe that this is so. I believe that the infection takes place through the lymphatics. Rosenthal has shown that certain micro-organisms, particularly those that occur about the mouth, have a predilection for certain tissues, particularly the lymphatic tissues, and especially the tissues about the region of the appendix. We all have noticed that appendicitis is very apt to occur during attacks of tonsillitis. When the germs get into the lymphatic system of the appendix, they rapidly pass into the lymphatics, which lie posteriorly to the peritoneum and ramify throughout the mesentery of the small intestine, and from there they gain access to the peritoneal cavity. My remarks, however, will have to be confined largely to the question of treatment. In this, the principal thing to remember from start to finish is that acute peritonitis in children usually comes from acute appendicitis, and that acute appendicitis requires operation. Other causes of acute peritonitis in children are, for instance, the pneumoccccus, the gonococcus (which is more common than we usually suppose), and the streptococcus, besides other more rare causes. In the cases of the pneumococcus and the gonococcus, medical treatment has given quite good results. Hence, in these instances, there might be some question as to whether or not an operation should be undertaken. Also, in the hemolytic-streptococcus cases that Dr. Barber has dealt with, the chance of doing any good by operation is small, and here likewise we might question the propriety of an operation. The whole question, then, is one of diagnosis largely. Dr. Barber seems to state that the diagnosis is quite evident, and perhaps easy. I question whether this is true. The best we can do, perhaps, is a good guess, and that guess may be wrong, and we may lose our patient from appendicitis. I think all of you appreciate how extremely difficult it sometimes is to diagnose a case of acute appendicitis in a child. The onset may be very sudden or it may be slow. The pulse, the temperature and the blood count, may all be very high or they may be low, or normal. As regards the intestinal tract, there might be in acute appendicitis, a diarrhea, as there often is, or there might be constipation. The pharynx or the bronchi do not give us any good criteria, because in appendicitis we frequently have a tonsillitis, a bronchitis, or even a pneumonia. So it seems to me that the wise thing to do, as Dr. Barber has indicated, is to operate in all cases of acute peritonitis in children with, of course, certain reservations under certain circumstances. But one thing has to be very clearly kept in mind, and that is that the operation must be done correctly, otherwise disaster can result easily. The preparation must be of a proper character—large amounts of fluids must be given. In other words, we should not operate too hastily, but we should get the child well filled with fluids. And the anesthetic has to be of an appropriate kind, gas and oxygen, or ethylene instead of ether. Local anesthesia can seldom be used in children, for obvious reasons. Spinal anesthesia might be adopted under certain circumstances. The incision has to be made at a point where the appendix can be easily reached. The appendix should be removed if it can be done promptly and easily, even though it does not show much change, because I believe it to be true that the point of entrance is so often in the appendix itself. Then we should not waste any time in exploration of the abdomen, which is a fatal thing to do, but large drainage tubes should be placed down deep in the pelvis and the abdomen closed. The after treatment is of importance. The patient should be put in a reclining position, large amounts of fluid should be given by the bowel and under the skin, and perhaps by the continuous intravenous route. When these things are done a certain number of patients will get well even in the presence of the most serious inflammation.

CASE REPORTS

UNUSUAL APPENDICEAL ABSCESS

EARL J. PERKINS, M.D., and
L. CLARK HEPP, M.D.
DENVER

This case of appendiceal abscess is reported because of its unusual nature. A very careful and intensive search of the literature failed to reveal a similar case.

The patient was a white female, aged 15, married. She entered the hospital complaining of pain in the abdomen. Two days previous to admission the patient ate some pumpkin pie and following this began to have pain in the epigastrium which gradually shifted to the right lower quadrant. Following the onset of the pain she became nauseated and had vomited for twenty-four hours previous to admission to the hospital. At the onset of vomiting she had a chill which lasted for about two minutes. There were no urinary symptoms, and no discharge was present. Last menstruation had occurred one and one-half weeks previously. The patient was always subject to dysmenorrhea.

Physical examination was essentially negative except for the abdomen being very tender in the left upper quadrant and in the right lower quadrant over McBurney's point. There was voluntary splinting of the abdominal muscles, but when the patient's attention was distracted, the palpating hand could be pressed deep into the abdomen. There was marked tenderness in the back over both kidneys. Vaginal examination revealed nothing, as the patient was so tender a satisfactory examination could not be made.

Blood examination showed: Red blood corpuscles, 4,500,000; white corpuscles, 13,800; polymorphonuclears, 84 per cent; lymphocytes, 15 per cent; eosinophils, 1 per cent; hemoglobin, 86 per cent.

Urine examination showed: Color, pale; albumen, negative; reaction, acid; sugar, slight red with nine gtts.; many epithelial cells and mucus threads; three pus cells per h. p. field; occasional erythrocytes, calcium oxolate crystals, hyaline and granular casts. Urine examination two days later was negative for any pathology.

A diagnosis of acute appendicitis was made and the patient prepared for operation. Under ether anesthesia, a right rectus incision was made. The tip of the appendix was found completely matted over by omentum and the whole mass, which was the size of a hen's egg, was floating free in the abdomen not adhered to the wall or to any other viscus. The appendix and its enveloping omentum was removed without spilling any pus into the abdominal cavity. The stump of the appendix was inverted by purse-string suture and the abdomen closed in layers. The tumor mass was opened after operation; it was found that the appendix had ruptured into the omental covering and pus was draining into the bowel through the lumen of the appendix. The patient made an uneventful postoperative recovery and was discharged from the hospital on the eleventh day.

PUBLIC HEALTH NOTES

Editor: J. W. AMESSE, M.D.

New Haven Makes Commendable Health Record

The 1931 mortality record for New Haven indicates that this municipality succeeded in keeping some of its citizens' worst enemies outside of the city walls.

The following are some of the items from the record of this city of 162,000 population:

	Deaths	Rate
Diphtheria	0	0
Scarlet Fever	0	0
Smallpox	0	0
Typhoid Fever	1	0.5
Tuberculosis	89	54.7

The loss of infants was at the rate of 54.4 per 1,000 births.

The Illinois "Health Messenger" suggests that, "It will probably soon be regarded as impolite for a citizen of New Haven to have any one of half a dozen diseases."

Tuberculosis Mortality Among Young Women

A sociological study of 180 deaths from tuberculosis occurring in girls between the ages of fifteen and twenty-five was made by Edna E. Nicholson in Detroit. Some of the facts reached are:

That death in adolescent girls has been declining at a less rapid rate than for other age groups.

There seems to be no marked disparity evident between male and female tuberculosis up to the age of eighteen.

That the problem of tuberculosis in negroes is a serious one and is accentuated in females.

Income of families of these 180 appeared to have no particular influence, nor did the housing conditions.

Deaths are not concentrated among uneducated girls but occur in groups which exceed the normal educational level.

The employment of the girls seemed to exert little influence.

There was no indication that wearing insufficient clothing was a contributing factor. Emotional tension and ambition for popularity coupled with insufficient rest predisposed them to the disease.

Early marriage and child-bearing at an early age encouraged tuberculosis among these women.

Communicable Disease Control

The air borne theory of disease spreading has been exploded. Physicians and public health workers everywhere now realize that most communicable diseases have their origin in man and spread from man to man. Our problem is now in educating the laity as to the means of spreading communicable diseases, according to Dr. Carl E. Buck of the American Public Health Association. He says it is not infrequent that we find that health officers throughout the country place too great an emphasis and reliance upon law enforcement as a means of controlling communicable disease. The more quickly we can realize that the law merely provides us with a weapon for emergency and that education is the primary function the more successful we will be. To summarize some of the points which should be borne in mind in communicable disease management, we quote the following from an article by Dr. Buck in "Public Health Nursing" for June, 1932:

"Isolation should be emphasized rather than quarantine. Restrictions should be reasonable, no more stringent than the protection of the public health demands.

"Education rather than law enforcement should be the keynote of our efforts.

"The control and prevention of communicable disease is primarily a responsibility of the individual and individual family. The educational efforts of the public health nurse constitute the most important factor in developing the individual's sense of responsibility.

"The use of so-called convalescent serum has proved of real value in the management of scarlet fever, measles, and poliomyelitis. Convalescent sera for other diseases may prove of value, but definite proof of their usefulness is not yet available.

"The moral issue should not be raised in the public health management of the venereal diseases. Patients with gonorrhea and syphilis should be given the same courteous treatment and consideration that would be accorded any communicable disease patient. Syphilis is more important, particularly syphilis of mothers and infants, than is gonorrhea, and it is likewise far more amenable to adequate management."

Poverty's Toll

"It is easier to heed the agony of one person than of millions," writes Heywood Brown in commenting on the Lindbergh kidnapping case. "If we had a survey showing one thousand children suffering from malnutrition, we would be sorry, but the forces of county, state, and nation would move less rapidly for them than for the one."

Remember!
Estes Park, September 8, 9, 10,
Sixty-second Annual Session.
Come!

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

Editor: J. J. WARING, M.D.

BOOK REVIEWS

The Volume of the Blood and Plasma, in Health and Disease. By Leonard G. Rowntree, M.D., and George E. Brown, M.D. Division of Medicine, the Mayo Clinic and the Mayo Foundation, Rochester, Minnesota. With the Technical Assistance of Grace M. Roth. Illustrated. Philadelphia and London: W. B. Saunders Company. 1929. 209 Pages.

This small volume is one of the series of Mayo Clinic Monographs. It covers very well the field of blood volume and with the attached bibliography will allow the reader to follow both the theoretical and practical fields of the subject.

The dye method has been particularly emphasized since the authors have found this more practical than others. The dye employed by them, brilliant vital red, has proved perfectly safe in their hands, and the technic as given can be easily followed by any well trained laboratorian.

Numerous tables are given for normals, both men and animals, and for these both blood and plasma volumes were found fairly constant.

In the field of pathological conditions some very interesting data is given. Particularly with the anemias, the information obtained confirms the theories in certain types but is frankly surprising in other cases.

Polycythemia is one condition in which the determination of blood cell and plasma volumes will afford the means of differentiating the various types, one from another. The results of other workers with the dye method has also proved satisfactory clinically, although criticisms are given.

This book can assist any worker in clinical medicine who is interested in the newer procedures of diagnosis. Much more work must be done in this field with both the technic described and others before the real value of the procedure is known. But for an introduction to the subject of blood and plasma volume this book is well worth while.

E. R. MUGRAGE.

Diseases of the Skin. A Text-Book for Practitioners and Students. By George Clinton Andrews, A.B., M.D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University; Consulting Dermatologist and Syphilologist to Tarrytown Hospital; to St. John's Hospital, Yonkers; to Grassland's Hospital; and to the Broad Street Hospital, New York City; Fellow of the New York Academy of Medicine, of the American Medical Association, and of the American College of Physicians; Member of the American Radiological Society, of the New York Roentgen Society, and of the Manhattan Dermatological Society. With 988 Illustrations. Philadelphia and London: W. B. Saunders Company. 1930. 1047 pages.

This text book of Diseases of the Skin is more concise than many similar books, but still covers the important points of the subject sufficiently to be a valuable reference book.

The important diseases are illustrated with well chosen photographs of typical cases and the usual long description of the different conditions are shorter than in many text books.

Appropriate treatment is described under each disease and a large number of prescriptions are given for local applications. While there is some repetition of the prescriptions, it still fulfills an important need of the average medical student and offers a definite outline of treatment for each disease.

The treatment suggested for the various stages of syphilis is sufficient to make this a very useful book to the physician who treats an occasional case of syphilis.

The uses of x-ray, Grenz-ray, surgical diathermy, radium and ultra-violet light in skin diseases are covered in sufficient detail to make this a valuable reference book for anyone employing these therapeutic agents in treating dermatological conditions.

JACK G. HUTTON.

Obstetric Education. Report of the Subcommittee on Obstetric Teaching and Education. Fred Lyman Adair, M.D., chairman. White House Conference on Child Health and Protection. New York, London: The Century Company. 293 pages. Price $3.00.

The investigations here outlined were in the hands of a large sub-committee of twenty-four prominent gynecologists and obstetricians, twenty-four leading nurses, and three social workers of note.

Four main themes were considered—Obstetrical Education of Physicians, Obstetrical Education of Nurses and Nursing Attendants, Obstetrical Education of Midwives, and Obstetrical Education of the Laity and Social Workers.

The high maternity mortality in this country and the fact that until comparatively recent years the only obstetrics taught in medical schools was the diagnosis of pregnancy and maternal care at delivery, gave the keynote for all investigation and study.

More adequate obstetric education was deemed necessary not only for the undergraduate, but for post graduate and graduate as well.

For the undergraduate the Committee recommended that 5 per cent of the total hours required for graduation and a degree should be given to obstetrics, that there should be a minimum number of deliveries before graduation, and that the one year internship should include a maternity service. It further recommended that national and state medical societies should do their utmost to secure legislation along these lines. In states where there is an economic need for midwives it was deemed wise to establish institutions with a great wealth of clinical material and to demand from all midwives frequent post graduate work.

For the social worker more adequate training in medical social work was recommended.

The investigation into the nursing service brought out many and timely recommendations, its first being that the White House Conference be asked to appoint a committee on teaching obstetric nursing and to supply funds for the work. Many of the succeeding recommendations are presented for the consideration of such a committee and are quite exhaustive.

An appendix gives a good summary of medical school requirements in obstetrics and gynecology and the statutory regulations of persons other than midwives practicing obstetrics.

M. ETHEL V. FRASER.



SILAS WEIR MITCHELL

(Continued from July)

Dr. Mitchell never wore glasses, although he had an extraordinary range of vision due to the fact that one eye was near-sighted and the other far-sighted. His hands were well shaped and always manicured. He had a deep voice and a captivating smile which contributed much to his success as a speaker. In conversation he was very alert, brief, and to the point, with evidence of enthusiasm. He was a safe guide and a wise counselor to older men and an inspiration to the younger men of his profession. He always had a very personal contact with his patients and his friends. Dr. Taylor, his associate, attributed his great success to "his unfailing optimism and his uncanny power to get people well."

It is difficult to describe such a man as Silas Weir Mitchell, for he was more than a master in medicine; as a research worker he was a genius and may rightly be ranked among the great Americans of the nineteenth century. He is known to have personally helped many people either by aiding them financially or by encouraging them in their chosen fields of endeavor. Among these may be mentioned Walt Whitman of Camden, N. J., whom Mitchell helped support in the poet's declining years.

The immense throng that gathered to pay tribute to Dr. Mitchell at his funeral composed men and women of prominence from all parts of the country. At that time Dr. William Taylor was heard to say, "In all this vast congregation I do not believe I see a person whom in one way or another Dr. Mitchell has not personally aided or encouraged in work or ambition."

Weir Mitchell had a faculty for doing things in a systematic and careful manner; his regard for correct English prompted him to submit many of his manuscripts to Mrs. Owen J. Wister, Owen Wister's mother, and to Mrs. A. L. Wister, a sister of Horace Howard Furness, for criticism. He displayed inherited refinement and culture at all times and observed correct manners in his home. He built his career on the foundation of morals and adhered strictly to religious principles throughout his life. On Easter Sunday he attended the services at Christ's Church. He remained steadfast to the faith of his early youth and cherished it to the end. His family was religious at a time when religion and the church was an important factor in all the affairs of every day life. In his autobiography this paragraph appears:

"When we stayed at Aunt ——— we had to go to church twice on Sunday and say a text daily, and the presbyterian services were of portentious length. I found that I could smuggle in with me a small copy of Midshipmen with ease, and in a dark corner of the pew comfort myself therewith."

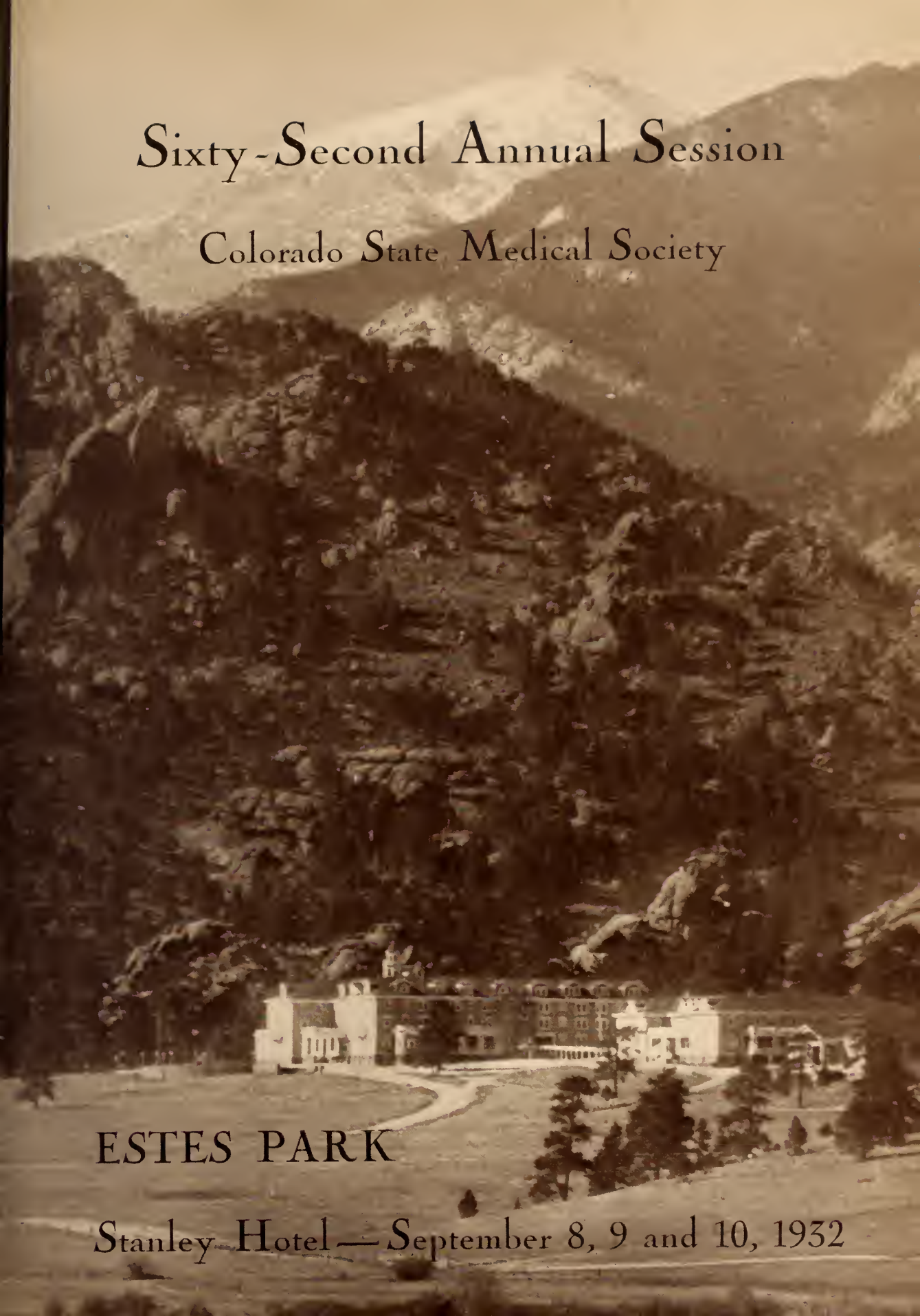
His intense interest in scientific facts and research work made him a great discoverer. His curiosity was awarded with startling results, this is well illustrated by a little incident which occurred while he was traveling through the woods—a turtle was dissected with only a pocket knife and in so doing he discovered the chiasm of the laryngeal nerve.

He was an untiring benefactor to humanity, kind and chivalrous; through his radiant personality he was a great healer.

(To Be Continued)

Sixty-Second Annual Session

Colorado State Medical Society



ESTES PARK

Stanley Hotel—September 8, 9 and 10, 1932

Official Call

To the Officers, Delegates, Committeemen and Members of the Colorado State Medical Society, Greeting:

The Sixty-Second Annual Session of The Colorado State Medical Society will be held in Estes Park, Colorado, on Thursday, Friday and Saturday, September the Eighth, Ninth and Tenth, Nineteen Hundred and Thirty-Two.

The House of Delegates will convene at Eight P. M., Wednesday, September the Seventh and subsequently as ordered.

The General Scientific Assembly will convene at Nine A. M., Thursday, September the Eighth and subsequently according to the program.

EDWARD DELEHANTY, M.D.,
President.

Attest: HARVEY T. SETHMAN,
Executive Secretary.

SIXTY-SECOND ANNUAL SESSION OF THE COLORADO STATE MEDICAL SOCIETY

Stanley Hotel, Estes Park, September 8, 9, 10, 1932

SCIENTIFIC PROGRAM

THURSDAY, SEPTEMBER 8, 1932

MORNING SESSION

9:00—Installation of President.

9:15—Recent Progress in Medicine.—Maurice Rees, M.D., Denver; Dean, University of Colorado School of Medicine and Hospitals.

9:30—The Causes of Changed Mortality Rates.—John B. Crouch, M.D., Colorado Springs.

9:45—Undulant Fever in Colorado.—Paul Connor, M.D., and F. Julian Maier, M.D., Denver.

10:00—A Five Year Study of Epidemic Meningitis in Denver.—B. B. Jaffa, M.D., Denver.

10:15—A discussion of Recent Advances in the Commoner Nervous Diseases.—Theodore H. Weisenburg, M.D., Philadelphia. Professor of Neurology at the Graduate Medical School, University of Pennsylvania. Guest of the Colorado Neurological Society.

11:00—Intermission.

11:30—The Schilling Blood Count.—Royal H. Finney, M.D. and Josephine N. Dunlop, M.D., Pueblo.

11:45—Relation of Surgeon and Insurance Carrier Under Workmen's Compensation Act.—W. R. Waggener, M.D., Denver.

12:00—Adjourn.

AFTERNOON SESSION

2:00—Presidential Address.—Frank B. Stephenson, M.D., Denver.

2:30—The Health Examinations in Schools.—Edward Jackson, M.D., Denver.
Discussion.

3:00—Iritis; Its Cause, Management, and Treatment.—C. E. Sidwell, M.D., Longmont.

3:15—On the Management of Ocular Injuries.—William C. Finnoff, M.D., Denver.
Discussion of Papers by Dr. Sidwell and Dr. Finnoff.

3:45—The Treatment of Burns.—N. A. Madler, M.D., Greeley.
Discussion.

4:15—The Clinical Care of Coronary Disease.—L. W. Bortree, M.D., Colorado Springs.
Discussion.

4:45—Mechanism of Edema.—Thad P. Sears, M.D., Denver.
Discussion.

5:15—Adjourn.

EVENING SESSION

7:30—Doctor, Patient, and State.—C. E. Cooper, M.D., Denver.

8:00—Economic Do's and Don't's for the Medical Society.—Harvey T. Sethman, Executive Secretary.

8:15—General Discussion.

10:00—Informal Dancing, Cards.

FRIDAY, SEPTEMBER 9, 1932

MORNING SESSION

9:00—Spastic Colitis.—L. L. Hick, M.D., Delta.

9:15—The Association of Eczema With Alteration in Gastric Secretions.—O. S. Philpott, M.D., Denver.

9:30—Pneumonia in Childhood.—Isaac Abt, M.D., Chicago. Professor of Pediatrics, Northwestern University. Guest of Rocky Mountain Pediatric Society.

10:15—Intermission.

10:45—Sinus X-ray With Lipiodol.—C. E. Earnest, M.D., Pueblo.

11:00—Pharyngo-maxillary Abscess.—Frank E. Palmer, M.D., Sterling.

11:15—The Medical Treatment of the Accessory Sinus.—F. J. Peirce, M.D. and F. H. Prior, M.D., Pueblo.

11:30—Progress in Otolaryngology.—Robert Levy, M.D., Denver.

11:45—*Discussion of Nose and Throat Papers.*

12:15—Adjourn.

12:30—Official luncheons.

AFTERNOON SESSION

2:00—The Relation of Roentgenology to Other Fields of Medical Practice.—Edward H Skinner, M.D., Kansas City. Guest of Denver Radiological Club.

2:45—Pneumoperitoneum in Treatment of Tuberculous Peritonitis.—O. M. Gilbert, M.D., Boulder.
Discussion.

3:15—Rest and Shot-Bags in Pulmonary Tuberculosis.—Gerald Webb, M.D., Colorado Springs.
Discussion.

3:45—A Demonstration of Normal and Pathological Nephroptosis.—Harry Wear, M.D., Denver.
Discussion.

4:15—General Principles in the Radiation Therapy of Tumors.—W. W. Wasson, M.D., Denver.
Discussion.

4:45—Adjourn.

EVENING SESSION

6:30—President's Reception.

7:00—Annual Banquet.—Speaker, Edward H. Cary, M.D., Dallas, Texas; President, American Medical Association.

9:00—Dancing.

SATURDAY, SEPTEMBER 10, 1932

MORNING SESSION

9:00—Report of Committee on Necrology.
Summary of the Proceedings of the House of Delegates.
Introduction of Newly Elected Officers.

9:30—Complications in the Treatment of Congenital Hip Dislocation.—Robert Packard, M.D. and Hamilton Barnard, M.D., Denver.

9:45—Corrective Treatment of Compression Fractures of the Vertebrae (Moving Picture Demonstration and Case Reports).—Atha Thomas, M.D. and Charles Sevier, M.D., Denver.

10:00—Low Back Injuries With Particular Reference to the Part Played by Congenital Abnormalities.—Frank D. Dickson, M.D., Kansas City. Orthopedic surgeon, Kansas City General Hospital and St. Luke's Hospital, Kansas City. Guest of Rocky Mountain Orthopedic Club.

10:45—Intermission.

11:15—Some Clinical Aspects of Breast Tumors.—Ella Mead, M.D., Greeley.

11:30—Cholecystectomy and Its Surgical Pathology.—C. W. Maynard, M.D., Pueblo.

11:45—Surgery of the Upper Abdomen, with special reference to diagnosis and treatment.—Louis V. Sams, M.D., Denver.

12:00—Adjourn.

AFTERNOON SESSION

2:00—The Obliterating Appendix as a Cause of Disturbances Connected with Abdominal Nerves and Lymphatics.—Leonard Freeman, M.D., Denver.
Discussion.

2:30—Factors Affecting the Mortality in Acute Appendicitis.—George Packard, M.D., Denver.

2:45—Cystic Degeneration of the Appendix; Report of Three Cases.—L. E. Likes, M.D., Lamar.
Discussion of papers by Dr. Packard and Dr. Likes.

3:15—Obstetrics from the Standpoint of the General Practitioner.—C. T. Knuckey, M.D., Lamar.

3:30—Uterine Hemorrhage.—William Halley, M.D. and P. W. Whiteley, M.D., Denver.
Discussion of papers by Drs. Knuckey, Halley, and Whiteley.

4:00—Local Anesthesia in Thyroid Surgery.—Virginia Van Meter, M.D., Denver.

4:15—Means and Methods of Goiter Prophylaxis.—Marcus O. Shivers, M.D., Colorado Springs.
Discussion of papers by Dr. Van Meter and Dr Shivers.

4:45—Adjourn.

EVENING SESSION

7:30—Entertainment, Estes Park Night Club.

GENERAL NOTICES

General Meetings—All scientific meetings, including the Thursday evening meeting on Medical Economics, will be held in the Casino Building of the Stanley Hotel. This is the third largest of the hotel buildings, about 100 yards east of the main hotel building.

House of Delegates—All meetings of the House of Delegates will be held in the Parlor of the Stanley Hotel—the main hotel building.

Board of Trustees; Council; Committees—Committee rooms will be set aside for the use of these groups and their location will be announced at the first meeting of the House of Delegates and at the opening General Meeting.

Reception; Annual Banquet; Annual Dance—The President's Reception will be held in the lobby of the main hotel building immediately adjoining the main dining room; the Annual Banquet will be held in the main hotel dining room; the Annual Dance will be held in the Casino.

Exhibits—All exhibits will be placed in the lobby and public rooms of the Manor, second largest building of the Stanley Hotel group, a few yards east of the main hotel building and joined to it by a covered walk. General Scientific Exhibits will occupy the Manor dining room; Roentgenological exhibits will occupy the Manor living room, and Technical or Commercial Exhibits will occupy the Manor lobby, between and joining the other two exhibit rooms.

GENERAL SCIENTIFIC EXHIBITS

The following preliminary list of General Scientific exhibits will in all likelihood be expanded by the time the final pamphlet program goes to press. A number of additional exhibits are being prepared, but their titles are not yet available for publication.

General Scientific Exhibits will be placed in the west room (former dining room) of the Stanley Manor. The following titles are listed in the order of their receipt by the Committee:

Management of Ocular Injuries: Demonstration with Plaster Models.—William C. Finnoff, Denver.

Undulant Fever.—Paul J. Connor and F. J. Maier, Denver.

Cystic Degeneration of the Appendix.—Lanning E. Likes, Lamar.

Demonstration of Electrocardiography.—Philip Hillkowitz and A. W. Freshman, Denver.

Autocoid Effect of a Hydatid Mole.—Richard W. Whitehead, Denver.

Pathological Exhibits of Animal Diseases Transmissible to Man.—U. S. Bureau of Animal Industry, George W. Stiles and C. L. Davis, Denver.

Medical Art.—University of Colorado School of Medicine, Miss Waneeta F. Stevic, Denver.

Pictures of Interesting Cases from the University of Colorado Hospitals.—Mr. P. J. Leverty, Denver.

Health.—Colorado Tuberculosis Association.

Indian Medicine of the Southwest.—Benjamin F. Jackson, Fort Lyon.

Rational Drug Therapy.—Council on Pharmacy and Chemistry, American Medical Association, Chicago.

The Diagnosis of Pre-paralytic Poliomyelitis.—Bureau of Exhibits, American Medical Association, Chicago.

Exhibit of National Formulary Products.—Colorado Pharmacal Association, Mr. Charles J. Clayton, Denver.

Rare Medical Volumes of Historical Value.—Library of the Medical Society of the City and County of Denver.

Highlights in Medical History.—Union Printers' Home, A. Lee Briskman, Colorado Springs.

Individual Pathological Exhibits. This group to include, among others: "Bronchiectasis," by Woodmen Sanitarium, Colorado Springs; "Tuberculosis of the Breast," by Carl W. Maynard, Pueblo; "Spleno-myelogenous Leukemia," by H. G. Goodson, Colorado Springs

ROENTGENOLOGICAL EXHIBITS

A preliminary list of titles and exhibitors for the Roentgenological Exhibition is here presented, probably to be expanded slightly for the final program. A number have promised exhibits but have not yet completed their preparation. They are presented in the order of their receipt by the Committee.

Sinus X-ray with Lipiodol.—Corwin Hospital, Pueblo.

Encephalography.—Colorado Psychopathic Hospital, Denver.

Serial Radiography in Pulmonary Tuberculosis. —Gerald B. Webb and W. F. Drea, Colorado Springs.

Radiological Phases of Pulmonary Tuberculosis.—Mennonite Hospital, La Junta.

Carcinoma of Lung Mistaken for Pulmonary Tuberculosis.—National Jewish Hospital, I. D. Bronfin and Louisa M. Black, Denver.

Roentgenological Studies of the Human Diaphragm.—Presbyterian Hospital, Denver.

Bone Metastases. — St. Luke's Hospital, Denver.

X-ray Diagnosis of Laryngeal Tuberculosis. — H. Schwatt, Spivak.

Tuberculosis of the Kidney.—T. Leon Howard and John M. Lipscomb, Denver.

Measurements of the Heart and Aorta. — Drs. Newcomer, Newcomer and Conyers, Denver.

Serial Pyelograms in Nephroptosis. — Harry H. Wear, Denver.

Title uncertain.—O. E. Coleman, Denver.

Spastic Colitis. — Lawrence L. Hick, Delta.

Fractures of the Skull; Brain Tumors.—J. R. Jaeger, Denver.

Roentgenological Findings in Intestinal Obstruction.—St. Joseph's Hospital, Denver.

CERTIFICATES OF AWARD

Following the custom established at the last Annual Session, Certificates of Award will be presented to those persons or institutions presenting the best General Scientific Exhibits and the best Roentgenological Exhibits, according to the judgment of the Committee on Scientific Work.

A first award will be presented in the General Scientific Exhibition and a first award in the Roentgenological Exhibition. Certificates of Honorable Mention will be presented in both exhibitions at the discretion of the Committee. Certificates will be posted the second day of the Annual Session.

All judging will be done by the Committee on Scientific Work, aided by such members or guests of the Society as the Committee may appoint to assist. The decisions of the Committee will be final.

GOLF TOURNAMENT

Golf will be managed by the Committee on Arrangements, and those planning to take part in the annual tournament should communicate at once with the chairman, Dr. Lowell Little, 202 Colorado Building, Fort Collins, Colo.

The Committee announces that there will be at least two flights, with prizes in each. There will also be a President's Prize for the low score of the tournament. Prizes will be announced and will be on display the first day of the meeting.

Each contestant should have his local club send his handicap to the chairman of the Committee



Fern Lake, Rocky Mountain National Park, Near Site of the Meeting

as soon as possible, so that the flights may be arranged in ample time before the tournament.

Golfers should watch for announcements on the first day of the meeting, since it is unlikely that the tournament will be played entirely on one day. There will be a scientific program each morning and afternoon, and play will be arranged so that all golfers will be able to attend such scientific sessions as they desire.

SPECIAL ENTERTAINMENT

In addition to the regular entertainment features of the Annual Session, the Committee on Arrangements is planning a special evening of entertainment for Saturday, September 10. This entertainment, details of which will be announced later, will be held in the Stanley Casino, and will be staged by the Estes Park Night Club with the addition of several specialty numbers. The program will be followed by informal dancing.

AUXILIARY PROGRAM

Interesting and varied entertainment will be provided for all women and members of physicians' families who attend the Estes Park Session, both through the Woman's Auxiliary of the State Society and the entertainment plans of the Larimer County Medical Society.

The Woman's Auxiliary will issue late this month its annual Year Book, containing a detailed program of Auxiliary activities at the Annual Session. In advance Colorado Medicine is able to present the following brief digest of the principal events already scheduled, with the reminder that the Year Book should be consulted as soon as it is published.

Thursday, Sept. 8, 9:00 a. m. Registration booth opens in the lobby of the Stanley Hotel (main building).

Thursday, Sept 8, 3:00 p. m. Meeting of retiring Board of Directors, Stanley Hotel.

Thursday, Sept. 8, 7:30 p. m. Joint meeting with Medical Society on Medical Economics, Stanley Casino.

Friday, Sept. 9, 10:00 a. m. General meeting of State Auxiliary, Parlor of Stanley Hotel.

Friday, Sept. 9, 1:00 p. m. Annual Luncheon of State Auxiliary and Guests, dining room of Stanley Hotel.

Friday, Sept 9, 3:00 p. m. Annual bridge party, Parlor of Stanley Hotel.

Friday, Sept. 9, 6:30 p. m. Annual Presidential Reception, jointly with Medical Society, lobby of Stanley Hotel.

Friday, Sept 9, 7:00 p. m. Annual Banquet, jointly with Medical Society, dining room of Stanley Hotel.

Friday, Sept. 9, 9:00 p. m. Annual Dance, jointly with Medical Society, Stanley Casino.

Saturday, Sept. 10, 9:30 a. m. Meeting of new Board of Directors, Stanley Hotel.

HOTEL HEADQUARTERS, RATES AND RESERVATIONS

Headquarters for all activities in connection with the Annual Session, including all Auxiliary activities, will be at the Stanley Hotel. This hotel also will be able to house the majority of physicians and guests who attend the meeting. Over-flow accommodations will be provided at the Lewiston Hotel (under the same management as the Stanley), which will offer facilities equal in every respect to those at the headquarters hotel.

The Stanley and Lewiston hotels have made a flat American Plan rate for the Session of $7.00 per day per person for rooms with bath, and $6.50 per day per person for rooms without bath. This is an all-inclusive rate, covering the Annual Banquet, the dances and entertainments. These rates will apply to all rooms in the hotels. There will be no "and up" to the rates, the prices being the maximum as well as the minimum. Early reservations will naturally secure the choice rooms.

Reservations may be made either direct to the Stanley Hotel, Estes Park, or through the Executive Secretary of the Colorado State Medical Society, 658 Metropolitan Building, Denver. Since, like most resort hotels, the Stanley and Lewiston rooms are largely arranged en suite, it will be a great help if groups of four register together so that they may be placed in rooms with connecting bath. All rooms are double rooms, but in a few instances persons can be assigned single occupancies if they are unable to register otherwise.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Meical Society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

* * *

CROWLEY COUNTY

The Crowley County Medical Society held its regular monthly meeting at the Park Hotel in Ordway, Tuesday, June 14. The social and scientific program was given on behalf of Dr. G. M. Baker, Rocky Ford. A chicken dinner was served.

F. L. Tomlin, Rocky Ford, discussed the origin and history of insurance and its relation to medicine. G. C. McQueen spoke on Veterans' Bureau Service, and Dr. G. M. Baker reported a case of tetanus. A general discussion was enjoyed.

J. A. HIPP,
Secretary.

* * *

LARIMER COUNTY

The Larimer County Medical Society held its regular meeting at the Loveland Country Club July 6.

The scientific program consisted of a very fine talk by Dr. H. B. Henderson, Denver. The title was "Practical Points in Gynecology." The subject was very well covered and drew considerable discussion from the doctors.

The guest of the evening was Dr. Lawrence D. Dickey, recent newcomer to Fort Collins. By vote of the Society, a special message of sympathy was sent to Mrs. W. A. Kickland in her recent bereavement.

C. E. HONSTEIN,
Secretary.

OTERO COUNTY

In the July issue of Colorado Medicine the report of the Otero County Medical Society meeting was somewhat in error. The correction is that Dr. B. F. Jackson and Dr. F. C. Cassidy were officially delegates to attend the A. M. A. meeting, which was reported to the County Society meeting held June 9. Dr. R. P. Jones attended the Dallas meeting and reported on that meeting.

F. C. CASSIDY,
Secretary.

* * *

The Otero County Medical Society held its regular meeting at the El Capitan Hotel in Rocky Ford, July 14.

Dr. E. L. Timmons of Colorado Springs gave some interesting points in pediatrics, showing photographs of improvement of children at the free clinic in Colorado Springs. Dr. W. P. McCrossin gave an instructive paper on cervicitis including etiology, diagnosis and treatment, explaining the result of treatment by cautery.

Dr. John E. Cummings of Colorado Springs was also a guest at the meeting.

C. E. MORSE,
Secretary.

Obituary

William Alfred Kirkland

Dr. William A. Kickland of Fort Collins died at St. Joseph's Hospital, Denver, July 7, 1932, at the age of 64 years, from pyemia, due to hemolytic streptoccus.



WILLIAM A. KICKLAND, M.D.
President, Colorado State Medical Society, 1930-1931

Dr. Kickland was born at Crystal, Michigan, May 3, 1868. He received the degree of Bachelor of Science from the University of Michigan in 1892, and was later instructor in biology, demonstrator of anatomy, and assistant to the professor of gynecology and abdominal surgery. The degree of M.D. was awarded in 1895. He came to Colorado and was licensed to practice here in the same year, settled in Fort Collins, and practiced there until the time of his death. Dr. Kickland was a member of the Larimer County and the Colorado State Medical Societies, and was a former president of both. He was president of the State Society for the 1930-1931 term. His leadership was eminently satisfactory. He was a member of the American Medical Association, of the American College of Surgeons, and various other medical societies, and he served as a surgeon in the World War. He was the leading surgeon of his section of the State. A great traveler, he kept abreast of the best work in American and European clinics, and was very highly regarded by his surgical confreres.

He leaves a widow, Mrs. Kate Lee Kickland, daughter of the late Dr. E. A. Lee of Fort Collins, and a sister in Stanton, Mich.

The writer, who has been familiar with the practice and the practitioners of medicine in Colorado for nearly half a century, has no hesitation in stating that, because of his ability, his high character, his fine personality, his intimate identification in every way with the life of his city and the sterling service which he rendered in Northern Colorado for thirty-seven years, Dr. Kickland has left a void such as is rarely to be noted when one of our profession passes on. Only a few of the fathers of medicine in Colorado were so intimately identified with one community for so long a time as to leave memories comparable to those bequeathed to us by our late colleague. The practice of medicine in the present era does not offer favorable conditions for the growth of such relationships as those which have characterized the lives of the physicians we mention.

Few of the profession in our state have more richly deserved the love, the respect, and the gratitude of the people they served, and none have received these tributes in greater degree.

J. N. H.

Herbert E. Colby

Dr. H. E. Colby, member of the Otero County Medical Society, died at the Mennonite Hospital in La Junta, Colorado, on June 9, 1932, following an illness of about eight months.

Dr. Colby was born in Chicago, Illinois, January 8, 1869. He received his medical education at Rush Medical College and there was graduated from the medical department of the Northwestern University. He was educated for the purpose of being a medical missionary, but later decided to take up the regular practice of medicine.

About two years ago, he came to La Junta and practiced until his health failed him. He had practiced in Ely, Nevada, and Silverton and Holly, Colorado, before coming to La Junta.

Dr. Colby was a veteran of the Spanish American War and a member of the Sons of Veterans. He is survived by his wife and three children. Two sons are now serving in the United States navy.

Roy Ennis Wolfe

Dr. Roy E. Wolfe of Rocky Ford, Colorado, died at the Physicians' Hospital of that city July 4, 1932. His death was caused by a middle ear infection which developed into meningitis after a period of apparent improvement.

Dr. Wolfe was born in Sullivan, Indiana, Jan. 1, 1878. After graduating from Chicago Homeopathic Medical College, he located in Rocky Ford and became an active physician, practicing thirty-one years at the time of his death.

He was a member and a past president of the Otero County Medical Society. At the time of his death, he was vice-president of the Arkansas Valley Medical Society and would have officiated at the meeting to be held in the near future at Salida, Colo.

He leaves to mourn his departure, his wife, Jane M. Wolfe; a son, Dr. A. M. Wolfe of Denver; a daughter, Lois Wolfe, and a younger son, Roy E., Jr., who is a pre-medical student in the University of Colorado; also his mother, Mrs. L. S. Wolfe, a sister, Miss Audrey Wolfe, and a brother, Clay Wolfe of Colorado Springs.

During his practice, Dr. Wolfe won and maintained the highest respect among his patients, acquaintances and his colleagues.

WOMAN'S AUXILIARY

With activities in our county auxiliaries suspended for the summer, this space this month will be given over to a resumé of national activities at New Orleans and to consideration of the suggestions gleaned from the news-letter of Mrs. Milton P. Overholser, national chairman of Press and Publicity. After reading her interesting account of the meeting and of that delightful French city of the United States, I'm sure we who were among the unfortunate absent will feel that we missed something big, and yet gained through the accounts of those who did go.

Mrs. Overholser writes:

The attendance was most gratifying. For obvious reasons it was not expected that the attendance would equal that at Philadelphia in 1931. There were 918 women registering at New Orleans. This number was 65 per cent of the Philadelphia registration. The A. M. A. at New Orleans registered 2,752, amounting to 34 per cent of the Philadelphia number. This is convincing proof of the auxiliary women's growing sense of responsibility for the organization.

No foreword concerning the convention this year could have given you an adequate idea of how interesting, informing, and helpful the meetings proved to be, or how delightful and unusual were the diversions and social features prepared by the convention committee for the time not assigned to the working program.

No other city could have provided a diversion comparable to the "Walk through Vieux Carré with Guides," nor anything more beautiful than greeted the guests "Through Garden Gates," nor have given the opportunity to meet in person and in her home the long admired Dorothy Dix (Mrs. Gilmer). In "Divertissements in the Garden," the Orleans Parish Medical Society presented to the Auxiliary the most appropriate interpretative dancing followed by an hour of negro spirituals of perfect quality.

New Orleans has a bit of our own Latin-America, and shows sense and sensibility in preserving and enjoying and sharing with its visitors the hundred squares of the Vieux Carré so beguiling in architecture, so full of vital and romantic history. Whether with "Things of Yesterday" or with "The Joys of Today," enriching experiences were provided for the hours of leisure.

The general meeting of the Auxiliary occupied the mornings of Tuesday, Wednesday and Thursday, May 10, 11, and 12, meetings so well planned by Mrs. McGlothlan that maximum accomplishments resulted with minimum appearance of machinery.

The reports of officers and committee chairmen and of state presidents brought stimulating records of achievement and plans for the future.

All Auxiliary women will be interested in the report of the nomination committee and election of officers.

The roster of officers and chairmen of standing committees follows:

President, Mrs. Walter Jackson Freeman, Philadelphia, Pa.

President-Elect, Mrs. James Blake, Hopkins, Minnesota.

Recording Secretary, Mrs. Sherman S. Hesselgrave, St. Paul, Minn.

Corresponding Secretary, Mrs. Henry F. Page, Philadelphia, Pa.

Treasurer, Mrs. Robert W. Tomlinson, Wilmington, Delaware.

Vice Presidents:

First, Mrs. James F. Percy, Los Angeles, California.

Second, Mrs. William R. Brooksher, Jr., Fort Smith, Arkansas.

Third, Mrs. Arthur C. Christie, Washington, D. C.

Fourth, Mrs. Rollo K. Packard, Chicago, Illinois.

Directors, One Year:

Mrs. Arthur B. McGlothlan, St. Joseph, Missouri.

Mrs. Arthur T. McCormack, Louisville, Kentucky.

Mrs. Evarts V. De Pew, San Antonio, Texas.

Mrs. Willard Bartlett, St. Louis, Missouri.

Two Years:

Mrs. Joseph Hume, New Orleans, Louisiana.

Mrs. Joseph A. Pettit, Portland, Oregon.

Mrs. J. Ralston Wells, Daytona Beach, Florida.

Chairmen of Standing Committees:

Program—Mrs. Arthur B. McGlothlan, St. Joseph, Missouri.

Finance—Mrs. Joseph J. Meyer, Johnstown, Pennsylvania.

Legislative—Mrs. William Weston, Columbia, South Carolina.

Public Relations—Mrs. A. Haines Lippincott, Camden, New Jersey.

Hygeia—Mrs. Rogers N. Herbert, Nashville, Tennessee.

Revisions—Mrs. Spencer Allen Collom, Texarkana, Texas.

Press and Publicity—Mrs. Milton P. Overholser, Harrisonville, Missouri.

Printing—Mrs. J. Newton Hunsberger, Norristown, Pennsylvania.

Convention—Mrs. L. Rock Sleyster, Wauwatosa, Wisconsin.

Archives—Mrs. William Burrill Odenatt, Philadelphia, Pennsylvania.

Exhibits—Mrs. Henry R. Miner, Falls City, Nebraska.

Historian—Mrs. Allen H. Bunce, Atlanta, Georgia.

Parliamentarian—Mrs. John Alexander McCaw, Denver, Colorado.

The induction into the office of president of Mrs. Walter Jackson Freeman brought to the convention her inaugural address. This address is character-revealing of our able and talented president, and carries a message that should be known to every Auxiliary woman.

Mrs. Freeman said:

"In taking over the direction of this great organization, I find myself confronted by an almost overwhelming responsibility. In addition to the daily office routine, in itself no mean task, there is an endless succession of important decisions to be made, policies to be formulated, precedents to be established, addresses to be prepared, Auxiliaries to be visited. The duties of the position demand a really superhuman combination of wisdom, tact, discrimination, forbearance, and above all, imagination, housed in a brain and body as strong as granite, as elastic as a spring, and as efficient as a robot. Painfully aware as I am of my inability to measure up to these requirements, I have the greater handicap of following a woman of superior ability, one whose administration has been marked by magnificent constructive work, reaching out to the smallest, most remote county group, directing their undertakings, providing the needed educational material, and when time, distance and physical strength permitted, inspiring by her presence. Mrs. McGlothlan has given you a great administration and has set an impossible standard. I can't hope to equal her record, but with God's help I will do my best.

"My first encouragement comes from the excellence of the officers elected and from the action of the Board in confirming the appointments of chairmen of standing committees.

"In starting the work of the year there are four points to which I wish particularly to direct your attention:

1. Business Methods.

"The first is your business administration, above all that bugbear of the uninitiated, that life saver of secretaries and treasurers, the fiscal year. No organization of any kind, in which the payment of dues is an obligation, can function without a fixed calendar date on which the treasurer's books are closed for the year, a sort of Greenwich meridian from which to reckon membership longitude. Every Auxiliary as yet unprovided with this first aid to efficiency should at once establish a fiscal year.

"To facilitate the work of keeping proper membership records the use of the treasurer's receipt books has been made mandatory, and is now practically universal. To supplement these the national Auxiliary is now inaugurating a uniform membership card filing system, also mandatory. The cards provide all necessary information for a period of twelve years, and county secretaries are requested to report annually on a form provided for the purpose all changes in the membership list. A section on Administration will be added to the State Presidents' Handbook and the importance of compliance with the plans for systematizing and simplifying the work of all your officers, county, state and national, cannot be overemphasized. I know I may count on your hearty co-operation.

2. Archives.

"The second point which I wish to stress is archives. Archives are the meat and drink of the historian, and the Auxiliary is, I firmly believe, destined to occupy so important a place in organized medicine that all details of its founding and development are of real value. How many Auxiliaries have preserved, in addition to their minutes, all the facts concerning their organization, the important preliminary correspondence, a complete membership file, a complete list of officers and committee chairmen, the names of those addressing the Auxiliary, with dates and titles of their subjects, programs of all meetings, etc., etc.? Only those who have attempted to gather such data after the lapse of only three or four years can have any idea of the chaotic condition of most early records. Most of us were careless, not realizing in those early days the great role that the Auxiliary seems destined to play. Now, however, as the vision of the future unrolls before our eyes, and while the founders are still with us to establish the facts, let us all hasten to write them down before they are lost forever.

"The system of filing our national archives will be developed under expert professional guidance, and the national chairman will be glad to pass on this information to all needing help.

3. Public Relations.

"So much educational material is already in your hands that I feel sure you are all eager to bring it into play, which brings me to my third great interest, public relations. How often, I wonder, are organization chairmen met with the objection that a community is 'over-organized' and that there is nothing for the Auxiliary to do? The 'over-organized' community is exactly the one in which the Auxiliary is most needed and finds its greatest opportunity.

" 'How far that little candle throws its beams!
So shines a good deed in a naughty world.'

"These words apply perfectly to many Auxiliary activities, and yet the most important work is often done through other organization, the Auxiliary members suggesting and guiding the work along lines approved by the Medical Society and the health officials. I cannot too strongly urge you to study, among others, the methods of the campaign for periodic health examination in Delaware, the anti-tuberculosis radio contests in Minnesota, the three-minute health talks prepared for the Parent-Teacher Association in Florida, and the regional health conferences in Georgia. In every case the Auxiliary was the moving spirit, while the work and the bills were paid by other organizations. Obviously, the more organization, the wider the field for Auxiliary influence, the greater the opportunity to contribute our mite not only to community health, but to the understanding by the public of the work and the ideals of the medical profession.

"This understanding of our position and opportunity is particularly encouraging in a small community. There are a few national organizations, such as the Parent-Teacher Associations, the American Legion Auxiliary, and the Federated Clubs, so widespread in their ramifications that some one of them touches the life of nearly every educated woman in the country. By her membership in one or another, and by her daily personal contacts with her friends and neighbors, she can if she will make the Auxiliary a powerful health educator in the community.

4. Happiness.

"We hear much of the inevitable sacrifices of the doctor's wife, only too well known to us all, but what of her rewards? Here again the Auxiliary has the answer. Not only does it offer her unrivalled opportunities for the service of humanity, but by that very service a new bond of

sympathy and understanding is created between the doctor and his wife. Again and again do I find mention in the Medical Journals from all parts of the country of the new interest in their husband's work taken by Auxiliary members, of their better understanding of the imperative demands made on a physician, of his greater responsibility as his brother's keeper because of his greater knowledge and skill. There is less jealousy of his profession, less resentment at its demands, greater harmony in the home, and the doctors are not slow in voicing their appreciation of this changing attitude.

"And, so, as the fourth and chiefest of the thoughts I want you to bear in mind throughout the year, I offer you the great prize of happiness, the knowledge that work in the Auxiliary makes for harmony in your home and draws you and your husband ever closer together."

MRS. DOUGLAS W. MACOMBER,
State Chairman of Press and Publicity.

COLORADO NEWS NOTES

BOULDER—Dr. H. A. Green of Boulder was elected first vice-president of the Midwest Hospital Association in St. Louis, Mo., June 3. Dr. M. H. Rees and Dr. B. B. Jaffa of Denver and Dr. H. A. Black of Pueblo were named trustees.

COLLBRAN—Dr. H. H. Zeigel has returned to his home after completing a post graduate course at the Washington University School of Medicine at St. Louis.

COLORADO SPRINGS—Dr. C. S. Morrison was elected president of the Colorado Springs Clinical Club at a meeting held recently at the El Paso Club. Dr. J. H. Hartwell and Dr. Leo Conway were also elected to offices.

COLORADO SPRINGS—Dr. Gerald B. Webb has recently been made a Fellow of the New York Academy of Medicine, President of the American Association of the History of Medicine, and Governor for the State of Colorado of The American College of Physicians.

DENVER—Dr. M. H. Rees of Denver recently attended a meeting in Philadelphia of the advisory committee for the teaching of psychiatry, appointed by the National Mental Hygiene Society. Dr. F. G. Ebaugh gave a report at the meeting.

DENVER—Dr. A. L. Beaghler, health director of the Denver Public Schools, was elected president of the Western Branch of the American Public Health Association at its recent annual meeting.

DENVER—Dr. and Mrs. Atwater Douglass will spend the month of August in the mountains of New Mexico and Mesa Verde, Colorado.

DENVER—Friends of Dr. Robert L. Charles will regret to learn of the death of his mother July 3.

DENVER—Dr. O. B. McGillicuddy has returned to Denver after a month's sojourn in Michigan, during which he attended commencement functions at Ann Arbor.

DENVER—Dr. and Mrs. Ray L. Drinkwater, with their daughter, Ruth, spent the month of June in a delightful motor trip through New England and the middle Atlantic states.

DENVER—Dr. G. W. Holden, for the past twenty-eight years superintendent of Agnes Memorial Sanitarium, has re-entered private practice with offices in the Metropolitan Building, Denver.

DENVER—Dr. and Mrs. S. B. Childs were called suddenly on May 19 to Stanford, Conn., where their son, Beresford, a student in Yale Medical School, was seriously injured while diving into a shallow pool. He sustained a dislocation of the fifth cervical vertebra. His convalescence was rapid and he is at his home in Denver now.

DENVER—Dr. Elsie S. Pratt and Dr. M. Ethel V. Fraser were among the recent visitors to the Carlsbad Caverns, New Mexico.

DENVER—Dr. E. C. Hill has retired from practice and with Mrs. Hill is making a tour of Alaska, Iceland and Denmark. He expects to be gone three months.

DENVER—Dr. R. J. Groom has completed his service as Chief resident at Children's Hospital. He is temporarily taking care of Dr. F. J. McDonald's practice in Leadville. Dr. Groom expects to locate permanently in Honolulu.

DENVER—Dr. and Mrs. E. I. Dobos and family enjoyed a fortnight's vacation during July on a ranch near Taos, New Mexico.

DENVER—Dr. J. R. Bramley has returned from a trip to New Jersey where he visited friends and relatives.

DENVER—Dr. H. C. Brown was honored with an appointment on the Board of Directors, International Rotary, at its annual convention held in Seattle in June. After the meeting he and his family extended their trip into Alaska.

DENVER—Part three of the National Board of Medical Examiners tests were conducted in Denver July 5, 6, and 7, at Colorado General and Denver General Hospitals. The examination in Clinical and Laboratory Medicine was in charge of Dr. C. F. Kemper, that in Clinical Surgery was directed by Dr. George B. Packard, Dr. David A. Strickler was in charge of the Eye, Ear, Nose and Throat and Dermatological parts, Dr. C. B. Ingraham was in charge of Obstetrics and Gynecology and Dr. J. W. Amesse was in charge of Public Health examinations. These men were assisted by thirty-three other doctors. Six candidates took the examinations, two being Colorado men, two from Nebraska and two from California.

FORT LYON—Dr. and Mrs. F. C. Cassidy of Fort Lyon have returned to their home from an extended trip through the south and a cruise of the Caribbean Sea.

FORT LYON—Dr. and Mrs. B. F. Jackson of Fort Lyon have returned to their home after a month's visit in the south.

LAMAR—Dr. and Mrs. N. M. Burnett and daughter were in Denver recently, attending the meeting of the State Board of Health and the Western Branch of the American Public Health Association.

LOVELAND—Dr. J. G. McFadden of Loveland attended the meeting of the Western Branch of the American Public Health Association.

SALIDA—Dr. Matt Cochems of Chicago, Illinois, nephew of Dr. and Mrs. F. N. Cochems of Salida, is spending two weeks' vacation in Salida.

FORT LYON—Dr. R. C. Cook has been transferred from the Fort Lyon Hospital to Excelsior Springs, Missouri, as Medical Officer in Charge of the Veterans' Administration Hospital in that city. Dr. Cook, who was recently elected president of the Arkansas Valley Medical Association, has resigned the presidency.

Colorado State Medical Society
Officers, 1931-1932

President: Edward Delehanty, Denver.

President-elect: Frank B. Stephenson, Denver.

Vice Presidents: First, H. C. Goodson, Colorado Springs; Second, Lanning E. Likes, Lamar; Third, C. E. Sidwell, Longmont; Fourth, L. L. Hick, Delta.

Constitutional Secretary: Lorenz W. Frank, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 656-658 Metropolitan Bldg., Denver. Telephone KEystone 0870.

Delegates to the American Medical Association: Senior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver; Junior, Crum Epler, Pueblo; Alternate, J. N. Hall, Denver.

Councillors:

		Term Expires
District No. 1	Ella A. Mead, Greeley	1935
District No. 2	G. P. Lingenfelter, Denver	1934
District No. 3	George D. Andrews, Walsenburg (Chairman)	1933
District No. 4	W. W. Crook, Glenwood Springs	1936
District No. 5	C. A. Davlin, Alamosa	1932

Standing Committees, 1931-1932

Credentials: Lorenz W. Frank, Denver, Chairman; L. L. Herriman, Alamosa; George T. O'Byrne, La Junta.

Scientific Work: C. S. Bluemel, Denver, Chairman; W. A. Kickland, Fort Collins; A. J. Markley, Denver.

Arrangements: Lowell Little, Fort Collins, Chairman; W. B. Hardesty, Berthoud; William P. Gasser, Loveland; Roy F. Wiest, Estes Park; Gerald B. Webb, Colorado Springs, ex-officio.

Public Policy: H. R. McKeen, Denver, Chairman; H. S. Finney, Denver, Vice Chairman; W. W. King, Denver; B. B. Jaffa, Denver; James A. Philpott, Denver; George H. Curfman, Salida; Z. H. McClanahan, Colorado Springs; W. W. Harmer, Greeley; Carbon Gillaspie, Boulder; Edward Delehanty, Denver, ex-officio; L. W. Frank, Denver, ex-officio; Mr. Harvey T. Sethman, Denver, ex-officio.

Publication: William H. Crisp, Denver, Chairman; C. F. Kemper, Denver; C. S. Bluemel, Denver.

Medical Defense: C. F. Hegner, Denver, Chairman; W. W. Wasson, Denver; T. D. Cunningham, Denver.

Medical Education and Hospitals: Herbert A. Black, Pueblo, Chairman; Fred A. Forney, Woodmen; Philip Hillkowitz, Denver.

Library and Medical Literature: Frank W. Kenney, Denver, Chairman; E. E. Evans, Fort Morgan; James J. Waring, Denver.

Co-operation with Allied Professions: John Andrew, Longmont, Chairman; Robert L. Downing, Durango; T. E. Carmody, Denver.

Medical Economics: John M. Foster, Jr., Denver, Chairman; John B. Crouch, Colorado Springs; B. B. Blotz, Rocky Ford.

Necrology: John F. McConnell, Colorado Springs, Chairman; George A. Moleen, Denver; Robert B. Porter, Glenwood Springs.

Special Committees, 1931-1932

Medical Extension: Maurice H. Rees, Denver, Chairman; O. M. Gilbert, Boulder; C. E. Harris, Woodmen.

Industrial Commission Fees: William H. Halley, Denver, Chairman; William Senger, Pueblo; John R. Espey, Trinidad; George B. Packard, Denver; Harold T. Low, Pueblo.

Advisory Committee to the School of Medicine: Charles O. Giese, Colorado Springs, Chairman; N. A. Madler, Greeley; Fred M. Heller, Pueblo; T. Leon Howard, Denver; J. A. Hipp, Olney Springs; G. C. Cary, Grand Junction; Walter E. Hays, Sterling.

Cancer Survey: C. B. Ingraham, Denver, Chairman; Sanford Withers, Denver; Glen E. Cheley, Denver; John B. Hartwell, Colorado Springs; James D. Carey, Fort Collins; C. A. Davlin, Alamosa; John P. McDonough, Gunnison.

State Registration Fee: Gerrit Heusinkveld, Denver, Chairman; Peter J. McHugh, Fort Collins; Claude E. Cooper, Denver; O. D. Groshart, La Junta; Lee Bast, Delta.

Constituent Societies
Meeting Dates; Secretaries

Arapahoe County—Last Monday of each month; secretary, W. C. Crysler, Littleton.

Boulder County—Second Thursday; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, G. W. Larimer, Salida.

Crowley County—Second Tuesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, H. I. Barnard, Denver.

El Paso County—Second Wednesday of each month; secretary, W. A. Campbell, Jr., Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs, Colo.

Huerfano County—Third Thursday of each month; secretary, J. M. Lamme, Walsenburg, Colo.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, Walter C. Keller, Genoa.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, C. E. Honstein, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—First Tuesday of each month; secretary, H. M. Tupper, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each month; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Thursday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, R. J. Rummell, Lamar, Colo.

Pueblo County—First and Third Tuesday of each month; secretary, L. L. Ward, Pueblo.

San Juan—Second Saturday, January, April, July and October; secretary, R. L. Downing, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Weld County—First Monday of each month; secretary, Tracy D. Peppers, Greeley, Colo.

WYOMING SECTION

President, F. L. Beck, Cheyenne — Vice President, J. L. Wicks, Evanston
President-elect, H. L. Harvey, Casper
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne
Councillors: G. P. Johnston, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shafer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan R. H. Sanders, Rock Springs E. L. Jewell, Shoshoni

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Rock Springs In Retrospect

THE Rock Springs meeting has passed into history, but it would take some real historian properly to make the record. Just as all histories covering the same period in the life of a nation are unlike if written by different authors so the history of this meeting would be different if one was written by each member who attended. However, we believe that all would agree on many of the essential points. Every one would concur in saying that the meeting was worth while.

Sorry are we for some doctors who failed to attend this meeting and enjoy the fellowship of the fine men who came to us from Colorado, Nebraska and Utah, to say nothing of the enthusiasm generated by our outstanding President of the American Medical Association, Dr. Edward H. Cary of Dallas, Texas. There was not a man who attended the meeting who did not go away with new ideas and the determination to be a better doctor, and we can truthfully say that from the visitors or from our own members we did not hear one word of complaint. All seemed to enjoy every minute of the meeting, and outside of the fact that we did not have sufficient time to discuss the papers, little could have been added to our enjoyment.

The doctors of Sweetwater County and their good wives certainly did everything that they could to entertain us and make us feel at home. The spirit of hospitality was so strong that it was hard for some of the outside members to believe that everything was free. It is true that it was a financial burden to such a small society, but never a word of regret was heard from any source.

The clinics this year were nicely arranged and greatly enjoyed. The hospital management showed every courtesy, and the luncheon given Tuesday noon was greatly appreciated by the members.

We shall not attempt to discuss the scientific papers in this short editorial, but we do take pleasure in recording the names of the officers who will manage the affairs of the Society for the coming year.

Dr. E. L. Beck, who was last year chosen President-elect, becomes the President. His home is in Cheyenne. We can rest assured that our leadership is in worthy hands and that all the higher traditions of medical organization will be followed by this man at the head of our society. Dr. H. L. Harvey of Casper was given the office of President-elect. Dr. J. L. Wicks of Evanston is the new Vice President. Dr. Earl Whedon of Sheridan, Secretary, was re-elected, as was Dr. Evald Olson of Meeteetse, Treasurer. Dr. George P. Johnston was elected Councilor for a three-year term and also delegate to the American Medical Association for two years. Dr. E. L. Jewell of Shoshoni and Dr. G. L. Strader, Cheyenne, were elected alternates to the A. M. A. The Medical Defense Committee consists of Dr. Earl Whedon, Secretary, Sheridan, Dr. R. H. Sanders, Rock Springs, and Dr. E. L. Jewell, Shoshoni

The annual banquet was presided over by Dr. Oliver Chambers as Toastmaster. The banquet was followed by a well-attended dance. The visiting ladies were delightfully

entertained at the home of Mrs. E. S. Lauzer Sunday evening. Monday morning they were conducted through the Gunn Quealy Coal Mine. Later Monday they were taken to Green River where a bridge luncheon was served in the Union Pacific dining room. Tuesday morning they had breakfast at "Howard's" followed by bridge at the home of Mrs. Chambers.

We expect to be able to print several of the papers in months to come, but we will be unable to convey to those who missed this meeting the good things that they should have had.

To say that we had a wonderful time is putting it mildly. That some other Society could give us a better time can hardly be conceivde. E. W.

THE CHILDREN'S CHARTER*

J. C. KAMP, M.D.
CASPER

I consider it a great honor to be asked to make a talk on the Children's Charter, President Hoover's White House Conference on Child Health and Protection. This conference is sufficiently important that a week has been designated throughout the nation to discuss the problems of this work for the future of this generation.

"Tempus Fugit," the child of today is a citizen of tomorrow. You and I must recognize the necessity of physical and moral and spiritual training so necessary that these future citizens may carry on their work of progressive evolution in health, intellect and spirit. We must recognize that it is the child's first right of citizenship, under the American flag, so that we must pledge ourselves to this great work. It should be the standard of every major activity of service clubs and other organizations of the community. The foundation and groundwork activities have been carried on for some time, aggressive in character, extremely wide in scope, but young in accomplishment. State wide meetings of this kind will be the groundwork upon which this important work will make progress to its ultimate end.

Some of my contemporaries would call this an attempt at state medicine. With due regard to the ethics of my most honorable profession, I question that such is the case, and I can safely say that the ideals of the work are too high to bring it to such a pass. During these times of stress and strain in world economics we perhaps realize a little more acutely our shortcomings in dealing with these problems in the past. This conference will have as its aim and ultimate result, the stabilization of the welfare of the child throughout the nation.

I believe that the physical, intellectual, and spiritual welfare of the child should be divided into those ages which regulate its progress and development. Let me suggest such division as to its activity. The first period, say, the babe, from the day of its birth until the school age. The second period should be that between the ages of five and nine, or the pre-puberty age. Then the puberty age, from nine to sixteen. Next, the age of adolescence, that extremely important and dangerous age, from fifteen to twenty-one. Development of the human body is not controlled until the twenty-eighth year, so that should one speak of children according to age of development, we could all be considered children until the twenty-eighth year.

Let us consider the babe, at the start of life. There should be prenatal care of the mother; and, should I have my say, give every mother the hygienic and scientific care of a well-established hospital. Prenatal care for every mother by competent physicians would control unforeseen accidents of disease or abnormality so that the coming child would be given the right to be born with as little danger as possible to itself and its mother. This would give the child the greatest opportunity in the development of its body from the moment of its birth, and would give the mother an opportunity to

*Read May 5, 1932, before the Wyoming White House Conference on Child Health and Protection.

recover her normal health after undergoing the physiological changes necessary in bringing this new citizen into the world. Two weeks in the hospital gives the mother and child an excellent start on the road to health. Under the supervision of graduate nurses, it also teaches the mother the proper care of the child, both from the standpoint of food and hygiene. After this it is usual for both mother and child to have the supervision of their physician for at least six weeks. Thus corrections of minor troubles in the mother can be made, for it takes that long for her to return to normal, and, further, by that time the babe has had a good start on the feeding to which it is adapted.

Consider these requirements: its food requirement, its physical requirements, its behavior teachings, its moral and religious instruction—all of those things in the home life of the child. The care of the development of this child and its health should be under the constant supervision of the family physician with the cooperation of a thoroughly trained nutritionist of the community. Mothers are not supposed to be expert nutritionists and we do not find very many physicians who are thoroughly versed in the chemistry of food. The thoroughly trained nutritionist can be of wonderful service to the babe by teaching the mother. The normal development of the child depends largely upon the character and amount of the food that it gets. The force to stimulate the proper development of the child is regulated by the endocrine glands. Activity at this time is limited to the thyroid, the thymus, and the pituitary glands, which regulate bony and muscular development, development of the nervous system, the normal alimentation and assimilation of food, the stabilization of absorption of lime and phosphorus from food into the bony structure of the body. This should be guided by the usual requirements in this period of life, that the child may conform to hereditary and normal standards. The behavior, moral and religious instruction, of course, should be under the direct supervision of the parents. For every child the aim should be such spiritual and moral training as will help him in the future to stand firmly under the pressure of life, understanding and guarding his personality as his most precious right. There must be a home for the child, a home of love and security, and for that child who must receive foster care, the nearest substitute for its own home.

From the fifth to the ninth year, a slower period of development takes place. At this time the child necessarily changes its environment. In addition to its home care and protection, it gradually comes under the supervision of the school authorities. How very important it is that during this age its home environment, its food, and its care, its mental and physical training be of the highest type. Our present system of school work advancement cannot be improved upon if there is the additional supervision of the nutritionist to watch growth. By the eighth or ninth year, when the thymus gland begins to lose its efficacy and the pineal gland begins to assert itself, comes the age I have called pre-puberty, with the development of the secondary sexual characteristics. Chemical activity of the entire body is increased and care must be made to watch the developing body carry on its normal growth.

For every child throughout puberty and adolescence, health protection requires periodic health examinations, special and hospital care when needed, regular dental examination and care of the teeth, preventative measures against communicable disease, proper food, sunshine, healthful recreation and rest. These alone, of course, are not the only things it needs. It needs a dwelling place, safe, sanitary and wholesome, with reasonable provisions for privacy, free from conditions which tend to interfere with its welfare. A home environment is best, with the common sense of an American home that heredity and good breeding have already established. With the aid of the school and health authorities cooperating with the physicians of the community, and the nutritionists, these factors should make for the proper stabilization of the health of the child. Every child needs a school that is sanitary and safe from hazard, properly equipped, lighted, and ventilated, and, for younger children, nur-

sery schools and kindergartens to supplement home care. We can be proud of the community which recognizes and plans for the needs of the child, protecting him against physical danger, moral hazard, providing him with wholesome and safe places for play and recreation, and making provision for his cultural and social education. Cooperation by parents, school authorities, and those especially trained in social and civic welfare work, should be standardized, so that this work might be properly coordinated and carried on for the prime and sole factor of the development of the child.

Every child is entitled to an education which through the discovery and development of his individual ability, prepares him for life, and through training and social guidance gives him the maximum of satisfaction. In other words, this means such teaching and training as will prepare him for successful adult life, for social and moral guidance during that period, for successful parenthood, the making of the home, and the rights of citizenship. In addition to protection of the child's moral and health standards, it also should have the right to education for safety—protection against accidents to which modern conditions subject him. This education should be supplemented by lectures and teaching by our law enforcement organizations, which will give him a better idea for his protection in the busy city streets.

The blind, crippled, deaf, or otherwise handicapped children require such examination, diagnosis and treatment under the supervision of trained specialists that these children may improve and be useful citizens. I do not refer to the children of those parents who can and should be forced to give such care themselves, but to those children socially handicapped who would not otherwise receive such care. Preventive instruction should also be given children in the schools; study the posture of the child in walking, in exercise, at his desk, and prevent deformities which might occur as the result of defects. We fully recognize the wonderful work done by fraternal and service organizations among crippled children. Too much cannot be said in their favor. Everyone should take a community interest in these unfortunate children.

Strict laws should be enforced for the proper care and treatment of mentally deficient children in an environment which would lead to an improvement not alone in their mentality, but also in their general health. Normal children should by all means be separated from these subnormals so that habit conditions will not occur amongst them. From time to time, efforts have been made to establish courts or instruments of law to deal intelligently with those children in conflict with society. Such should your efforts be that these cases may be scientifically controlled so as not to become society's outcasts. Proper control of these cases within the home; cooperation between the home, the Parent-Teacher Association and the school, will do much to aid this cause. The use of spiritual and religious training is recommended, and, as a last resort, the courts, to control delinquency so that these children may be returned to the normal stream of life. One should bear in mind, too, that in addition to the work that is done among individual cases, the service organizations should give their full support to the Boy and Girl Scouts which greatly help the development of the child. All of these things are guards against social handicaps.

Every child is entitled to protection against labor that would stunt his mental and physical development, and to the protection that provides against limitation of comradeship, of play, of joy and education. This should not hold good alone for the child of the city but also for the rural child, for he, too, should have the support and protection of such organizations as this and the help of service clubs and others.

To enjoy all of these things which will help in the development of the health and welfare of the child there should be standardized districts, county or community organizations to give health protection and welfare education, with full time officials who have been properly trained along these lines of endeavor. Such officials must cooperate with state organizations and be re-

sponsible to a nation-wide service properly conducted for general information, statistics, and scientific research. This will in time provide an efficient organization in this most important work. This can only be done by trained full time officials, public health nurses, properly trained public school nurses, all helped by physicians to control the sanitary conditions of cities, towns, and rural communities. Support hospital beds for those mothers who require prenatal, natal, or postnatal care, and children who require hospitalization; full time public welfare service organizations for the relief, aid, and guidance of those children in special need on account of poverty, misfortune, or behavior.

This community, like so many in our state, has done a great deal of this work. Our general citizens' relief committee has done very excellent work in the control of the problems of feeding the poor during this economic depression. Your further support is needed for its continuance. Suffice it to say that as the result of this carefully planned work, we have yet to see one case of illness in our community as the direct result of malnutrition. This help in the work sponsored by the Lions Club of Casper, also supported by other service organizations of the community in the organization of the summer camp for children, is one of the most commendable pieces of community welfare and child health work in this country. It has received national recognition. We men and women of the state should feel proud of the record made. Every child, regardless of race, color, or situation, wherever he may live under the protection of the American flag, must be assured of that protection which will make him a better citizen of tomorrow. Carry on and improve this work and anticipate a greater future.

Cancer

There can be but little doubt in the minds of the students of public health, according to the United States Public Health Service, that cancer presents today the outstanding problem in this field.

One by one mastery has been gained over the various communicable diseases, so that nowadays the practical prevention of most of them is within the power of any society willing to spend the funds for adequate health service. As a natural result, the advances in preventive medicine and the science of nutrition, the great decline in the infant mortality rate, coupled with a falling birth rate and improved social and economic conditions, have had the effect of adding many years to the expectation of life at birth.

Yet, the bulwark of protection which advances in sanitary science have erected against the hazards of the first decades of life seems to have preserved the individual only to subject him to a liability of death from malignant disease which apparently has steadily increased during the period for which American vital statistics have been available; that is, since the establishment in 1900 of the registration area for deaths.

In 1900 when the registration area was first formed, the crude death rate from cancer was 63 per 100,000 population. In 1920, it was 83.4, in 1929 (the latest available figures) was 96.1, an increase over the crude death rate of 1900 of nearly 52½ per cent.

In 1929 the total number of deaths from cancer was 111,569. This makes cancer the second most important cause of death. Heart disease alone with 245,000 deaths claimed a greater number of victims.

One of the most striking increases in the death rate has been in the so-called external forms of cancer, such as cancer of the breast and cancer of the mouth, in which, because of the superficial position, errors in diagnosis are low as compared with the possibility for error in deep-seated cancer such as those of the stomach or other internal organs.

The conclusion has been reached after careful study of statistics by the United States Public Health Service that in the twenty-one year period from 1900 to 1920, about two-thirds of the increase observed in cancer death rate of persons 40 years old and over was due to an actual increase in the mortality of the disease. This is presumed to be incidental in some way to our complex development of social environment.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V August, 1932 Number 7

OLD Tuberculin discovered by Robert Koch in 1890 is a mixture of the bouillon and all metabolic products of the tubercle bacilli grown on it. Greater precision of the tuberculin test is highly desirable and for this a more specific and less variable testing substance is necessary. The chemistry of the tubercle bacillus has for some years been studied by investigators selected by the Research Committee of the National Tuberculosis Association, of which William Charles White is chairman. One of its results has been the isolation of a protein, which is designated as *MA100*. This substance causes the typical skin reaction in persons infected with tubercle bacilli. To test the reliability and practicability of it a study was carried on cooperatively by a number of workers. An analysis of the results is reported by Mariette and Fenger in the March 1932, American Review of Tuberculosis.

A NEW TUBERCULIN

MA100 is obtained from different types of tubercle bacilli and the timothy-grass bacilli. The protein is identical with the original tuberculoprotein isolated by Seibert. The bacilli are grown on Long's medium, a synthetic medium of fixed-standard composition, which is protein-free before culture. After growth the bacilli are removed by filtration and the protein of the medium is precipitated at a given isoelectric point by glacial acetic acid. Thus the identical substances are constantly brought down and these are not subjected to any denaturing process with heat or chemicals. The diluent was normal saline solution. Thus the testing substances contain no phenol or glycerine.

Four types of acid-fast bacilli were used, namely, the human, the bovine, and avian types of tubercle bacillus and the timothy-grass bacillus. The corresponding proteins obtained have been designated as *MA100 Human*, *MA100 Bovine*, *MA100 Avian*, and *MA100 Timothy*. The origin and virulence of each of the strains of bacilli from which the protein substances were derived, is known. The O. T. used for comparison also is of known derivation and sensitivity. Therefore, the reactions obtained can be safely compared and checked.

Old Tuberculin, as it is now marketed, is standardized on the basis of the minimum dose required to kill a tuberculous guinea pig. It has recently been shown, however, that O. T. contains a polysaccharide which is equally as lethal for tuberculous guinea pigs as is the acid-fast bacillary protein, but it produces no reaction when injected into the skin of tuberculous animals. Thus, standardizing tuberculin on the basis of the minimal lethal dose tells us nothing about its skin-testing potency. As a consequence, O. T. is known to differ as much as 400 per cent in that respect.

Procedure

For this study, the dosage of O. T. was established at 0.01 mgm. The MA100 human protein was diluted with normal saline solution to give the same skin reaction as that obtained with the established dose of O. T. This proved to be 0.000,5 mgm. If the skin reactions to these doses were negative at the end of 48 hours, the test was repeated with double the dose. The amount of MA100 of the several types necessary to produce a reaction comparable with that of the established O. T. was found to vary so that the following dosages were finally determined:

Tuberculin O. T.	0.01 mgm.
MA100 Human	0.0005 mgm.
MA100 Bovine	0.0001 mgm.
MA100 Avian	0.001 mgm.
MA100 Timothy	0.01 mgm.

Questions Investigated

Answers to five questions were sought.

1: *Is the MA100 human protein more sensitive and more selective than O. T.?*

A total of 2,328 individuals were tested simultaneously with O. T. and MA100 human. The group included general hospital patients, both adults and children, sanatorium employees ranging in age from 17 to 73, a general population group composed of nurses in general hospitals, medical students and school children in a rural section. The results are presented in detailed tables in the original article. It was found that more individuals reacted to the MA100 human protein than to O. T. and this was true of known cases of tuberculosis as well as in the general population group.

2: *Are the doses recommended safe or are dangerous reactions encountered?*

The reactions to the initial dose of O. T. and to the different MA100 proteins were compared. Reactions were recorded as plus one to four. Necrosis is associated only with a four-plus reaction and of these there were none in the series. There were no constitutional reactions in any of the tests but there were seven reactions which might be called disagreeable in that they were accompanied by lymphangitis or enlarged, painful axillary lymph nodes or superficial vesicles, which were not followed by or associated with necrosis. None of the reactions might be called dangerous. Two of the seven disagreeable reactions occurred with O. T. One with MA100 human protein, one with MA100 bovine protein, two with MA100 avian and one with MA100 timothy.

3: *Are the doses recommended and used in this study large enough or should they be increased?*

Of 540 clinically tuberculous individuals 91.1 per cent reacted to the established doses of MA100 human protein. In another group of 314 clinically tuberculous individuals 92 per cent reacted to both the initial and repeat doses of MA100 human protein. The 8 per cent of this group who failed to react either died or left the sanatorium before the test could be repeated.

By means of another series of tests, an attempt was made to determine whether or not a higher dose would yield a higher percentage of positive reactors. The authors conclude that the doses of the MA100 human protein as recommended (0.0005 mgm. and 0.001 mgm.) are apparently large enough and, therefore, need not be increased.

4: *Are the various MA100 proteins specific in that they will pick up only infections by the bacillus from which they are isolated?*

An analysis of the percentages of positive reactions in several thousand individuals tested with O. T. and the different MA100 proteins justified the authors in concluding that the bovine, avian and timothy MA100 proteins are not specific. They question whether O. T. in high concentration of a mgm. or more is specific. In small doses of O. T. and MA100 human protein, the reaction is apparently specific.

5: *Is there a protein substance common to all acid-fast bacilli?*

Comparison of reactions from O. T. and the several MA100 proteins lead the authors to conclude that there is apparently a protein substance common to all acid-fast bacilli, which if given in large enough doses will call forth a typical tuberculin reaction in just as large a proportion of the people as does O. T.

Conclusions

1. The MA100 human protein is as sentitive and as selective as O. T., and probably more so.

2. The initial and repeat doses recommended for the MA100 human protein are safe in that dangerous reactions are not encountered.

3. The initial and repeat doses recommended for the MA100 human protein are large enough to pick out the majority of tuberculous individuals and apparently do not need to be increased.

4. The MA100 proteins are apparently not specific in large doses at least.

5. There is apparently a protein substance common to all acid-fast bacilli, which, if given in large enough doses, will elicit the same type of reaction as that obtained from Old Tuberculin.

6. As the MA100 protein represents a substance in a purified form which can always be reproduced at the same isoelectric point and which can be weighed out in milligram doses, so that the exact milligram content of the solution is known, it is a better testing substance than Old Tuberculin.

Among the workers mentioned by the authors as participators in the study are:

Elmer H. Funk	Peter Masucci
F. M. Huntoon	Kenneth L. McAlpine
H. J. White	Esmond R. Long
J. Aronson	Professor H. Valée
Fred Carter	L. Van Es
Everett K. Geer	Edward R. Baldwin
Harold Diehl	M. Dorset
D. R. Hastings	M. I. Smith
Florence Seibert	W. H. Morriss
Parke, Davis & Co.	John Reichel
H. K. Mulford Laboratories	National Institute of Health

The Present Status of the Skin Reaction in Tuberculous and Non-tuberculous Subjects, E. S. Mariette and E. P. K. Fenger, in collaboration with Elmer H. Funk, F. M. Huntoon and H. J. White. Am. Rev. of Tuberc., March 1932.

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources — We Insure Only Ethical Practitioners

David Jacobs, Manager — *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. — Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.

BALTIMORE, MARYLAND

W.T. ROCHE

Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 — YOrk 0901

18th at Gilpin

STATIONERY *and* PRINTED FORMS *of* ALL KINDS

PRINTING

PROGRAMS
REPORTS
YEAR BOOKS
CATALOGS

Over 25 Years of Satisfactory Service

THE MILES & DRYER PRINTING COMPANY

1936-38 Lawrence St. — DENVER — Telephone KEystone 6348

GUARD HOMES and OFFICES

Against Dust, Insects and Drafts

WITH

MONARCH METAL WEATHERSTRIP

A. W. Hall, Mgr.

809 South High St., Denver — Phone PEarl 3817

Monarch Is the Only Weatherstrip That Is Adjustable

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. B. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D., Univ. of Colo School of Medicine and Hospitals, Denver

Coming Meetings:

American Hospital Association Annual Meeting—Detroit, Michigan, September 12-16.

American College of Surgeons Annual Meeting—St. Louis, Missouri, October 17-21.

Colorado Hospital Association Annual Meeting—Colorado Springs, Colorado, November 8-9.

* * *

The Association's Summer Meeting

THE REGULAR summer meeting of the Colorado Hospital Association was held at the Boulder-Colorado Sanitarium, on Friday, July 8, 1932. The meeting was given over entirely to the discussion of nursing problems and to the presentation of a report by Miss Louise Kieninger, Director of the University of Colorado School of Nursing, of the Committee on Nurses' Unemployment, of which Miss Kieninger was chairman.

The meeting opened with a paper by Miss Frieda Off, Directress of Nursing, Denver General Hospital, and a member of the State Board of Nurse Examiners, on the "Place of Specialty Training in the Education of Student Nurses." Miss Off made many interesting suggestions especially with regard to x-ray and laboratory training of student nurses. She stressed particularly the thought that "A little knowledge is a dangerous thing," and asked that more thought be given to the question of what we are educating nurses for today.

Miss Off's paper provoked considerable discussion. Miss Irene Murchison, Secretary of the State Board of Nurse Examiners, stated that in her opinion the teaching of these special courses is a confession of weakness in the training of nurses in the basic sciences. Miss E. Luella Morrison, Superintendent of Nurses, Children's Hospital, Denver, stated that this specialty training is necessary until the hospitals are able to take the burden of this work from the nurses.

The program continued with the report of Miss Kieninger, of the committee appointed to study the nurses' unemployment situation. This committee, composed of nurses, hospital superintendents, members of the medical profession, and interested laymen, had had numerous meetings and had devoted a great deal of time and thought to the problem. The committee felt that there is overproduction of nurses in Colorado, and recommended the following plan, which has the endorsement of the Colorado State Nurses' Association:

"In order to relieve unemployment among graduate nurses and to aid hospitals to maintain a good nursing service and at the same time decrease the number of students now being enrolled in Colorado schools of nursing, the Board of Directors of the Colorado State Nurses' Association endorses the plan of employing graduate nurses in hospitals for $35.00 per month, with board, room, and laundry. The hours of duty not to exceed forty-eight hours per week with one full day off each week. Since this remuneration does not compensate a professionally trained woman for her services and since the schools of nursing are equipped to give further education without greater expense, we would therefore recommend that nurses employed under this plan be placed as advantageously as possible with regard to clinical experience and be given organized instruction of at least two hours per week on some subject of educational value to them."

Miss Kieninger stated further that the committee felt that this recommendation is only a temporary measure necessitated by the present economic depression, and that some specific constructive step should be

(Continued on Page Twenty)

WORLD'S LARGEST AND OLDEST MAKERS OF SPECIALLY DESIGNED SURGICAL SUPPORTS

-BARCLEY-

Designing service offers doctors a complete line of surgical supports for every need and purpose, designed and made to the exact measurements and individual requirements of each and every patient—men, women and children. Factory, Newark, N. J.

Denver Office: 210-211 Barth Bldg. Phone MA. 0564

FRANCES VILES, Supervising Corsetiere Res. Phone, FR. 2092

Service rendered in patient's home, hospital or doctor's office, any time, day or night. Just phone and we will meet your convenience.

Our friends of the nursing profession will appreciate our stock garments, SMART-FORM, "true to its name." A smart and distinctive combination, girdle, brassiere and support.

AIR TRANSPORTATION

Safety — Comfort — Speed

Waco and Stinson Aircraft

READY TO GO—WHEN YOU ARE



WESTERN FLYING SERVICE

Municipal Airport, Denver. Ph. York 8273



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721

Woodcroft Hospital

PUEBLO, COLORADO

WOODCROFT HOSPITAL was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address
CRUM EPLER, M.D., Superintendent
H. A. LaMOURE, M.D., Medical Director **F. M. HELLER, M.D., Neurologist and Internist**
P. A. DRAPER, M.D., Resident Physician





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course

The Presbyterian Hospital

MODERN fireproof building—Telephone, hot and cold artesian water, lavatory in every room—Light, airy rooms—Reasonable rates—every facility for scientific diagnosis and therapy—Fully equipped pathological and x-ray laboratories and dietetic department.

East 19th Ave. and Gilpin St., Denver, Colorado

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING

BIDE A WEE
CONVALESCENT HOME

Elderly people or those with chronic conditions invited. Home-like surroundings and wholesome table. Rates reasonable. No tubercular guests.

693 South Logan SPruce 7070
Denver

HAGBERG'S
Convalescent Home

Located in the residential section of the city, adjacent to Cheesman Park. Special attention to diets—tray service—nurses' care.

Reasonaable Rates

1212 Vine Street Denver, Colorado

TOY TROPICAL FISH
40 Varieties Reasonably Priced

WATER LILIES POND SUPPLIES
FANCY BREEDING GOLD FISH

Ship anywhere; write for price list.

A Full Line of Aquariums, Aquatic Vegetation and Supplies

CHARLES T. GORE
4524 Decatur St. GAllup 0410

CHEESMAN PARK
Convalescent Home

A pleasant home for convalescents or elderly persons.

1630 E. 13th AVE. YOrk 8388

Saint Francis Sanatorium
Denver, Colorado

Attractively located on an elevation of 5200 feet with an extensive view of the snow-capped Rockies. Within easy access to the city of Denver by bus or carline. Rooms steam-heated with running water and connecting baths. Special attention given to bed patients. Excellent nursing care, service and food. Professional service—Ultra Violet lamp, artificial pneumo-thorax.

RATES $50.00, $55.00 AND $60.00 PER MONTH
Exclusive of medical attention

Operated by the Sisters of Saint Francis

325 KING SPruce 4268 DENVER



Home for Convalescents

You may enjoy all the comforts and privileges in our home exactly as you have had in your own. Clean rooms, well ventilated, with running water. Fine sleeping porches, excellent food, temptingly served. A splendid nurse in attendance. Intelligent and courteous service.

2555 W. THIRTY-SEVENTH AVE.

GAllup 0298 Denver, Colo.



A QUIET, restful nook for elderly ladies. Modern conveniences. Artesian water. Fine shade and shrubbery. Day and night nurses. Mild mental cases invited. No tuberculars. Rates very reasonable.

THE McCLELLAND HOME

920 Griffith Lane, Arvada, Colo.

Phone Arvada 533

Meeker Home

* * *

A Home and School for Sub-Normal Children

* * *

Study rooms, playgrounds, fruit and vegetable garden, dairy and home influences.

Rates very reasonable.

LYDIA G. MEEKER, Director

5187 Lowell Blvd. GAllup 4849

Denver



Magnolia Villa

An exclusive and beautifully located private home for elderly. Devoid of institutional features. Possessing a refined and sympathetic atmosphere. Exceptionally wholesome and appetizing meals prepared by a competent dietitian. Rates in accordance with service and accommodations.

MAGNOLIA VILLA

1950 Magnolia Ave. at Montview Blvd.

YOrk 8446-R Denver, Colo.

INVALIDS ELDERLY PEOPLE

DESIRABLE ENVIRONMENT

REAL HOME CARE



147 W. IRVINGTON **GRAY and PALMER** SPRUCE 5758

An Open Letter to the Medical Profession

On certain occasions your advice is requested as to the location of a clean, quiet home where tuberculous patients may obtain board and room at a reasonable cost. A place where they are welcome and where any ethical physician may call on his patient at any hour and be equally welcome. We do not operate a hospital or sanitarium, just a home, where those in moderate circumstances may have home comforts and encouragement.

MRS. TOBEY'S REST HOME

YORK 4047 7400 E. SEVENTEENTH AVE. DENVER, COLO.

ODERINE SANITARY NAPKINS

THE LATEST improvement for particular women who deem it a necessity to be dainty.

A deodorized napkin especially useful in cases of profuse menstruation.

Cartons of one dozen, 25 cents.

ODERINE DISTRIBUTING CO.

226 EMPIRE BLDG. DENVER, COLO.

ANN ROWLAND HOME

A QUIET, centrally located private home where elderly people are welcome. Sensible meals, appetizingly served. Practical nurse renders every assistance. Not an institution—not a sanitarium—just a home with home comforts.

1579 EMERSON TAbor 0027

FONTENELLE PRIVATE REST HOME

non-tubercular

1407 HUMBOLDT YORK 2861 DENVER

Elderly people—convalescents. Proper diet routine. Immaculately clean, well ventilated and comfortable rooms.

You are cordially invited to visit and examine Denver's finest rest home.



The House Beautiful

Overlooking Washington Park

For a Few Elderly People

1286 S. Gilpin, cor. Louisiana Ave.
SPruce 7840 Denver

Our New Service Department

Dear Reader:

Colorado Medicine together with the Co-operative Medical Advertising Bureau (a department of the American Medical Association) of Chicago have established a Service Department to answer your inquiries about pharmaceuticals, surgical instruments and other manufactured products such as equipment, supplies, etc., which you may need for your office, home, hospital, sanitarium, or automobile.

We invite and urge you to use this service. It is absolutely free and entails no obligation.

Between the offices of Colorado Medicine and the Co-operative Bureau we are equipped with catalogs and price lists of all manufacturers, and can supply the information you desire by return mail.

Whenever possible, such products are advertised in our pages. But perhaps you want a certain instrument or other product which is not advertised, and you do not know how or where to secure it. Colorado Medicine will give you the information.

Our address is 658 Metropolitan Building, Denver. We want to serve you.

COLORADO MEDICINE.

ARTHUR L. BALDWIN

Certified Public Accountant

TAX COUNSELOR

Fontius Building, Denver TA. 1444

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

The Association's Summer Meeting

(Continued from Page Ten)

taken to decrease the continual flow of new graduates into an already over-crowded profession.

A very vigorous discussion followed the presentation of this report. During this discussion many interesting arguments were presented by various members of the Association both for and against the suggestions of the committee. Following the discussion the report of the committee was accepted by a unanimous vote of the members present, and the committee was thanked for its work.

Collection of Accounts

The hospitals of the City of St. Louis have united in the collection of their accounts. This is the first attempt toward cooperative collecting which has been made. The central credit bureau functions in the matter of preventing a patient who has neglected to pay his account in one hospital from repeating the same performance in another.

There is a great deal of merit in this plan, and the hospitals of Denver might do well to investigate it further.

THE NEED FOR TRAINING OF SPECIALIST NURSES*

BESSIE HASKIN, R.N.
DENVER

It seems quite a question these days just how much education should be and is required from those seeking positions of merit in the nursing world. After the nurse has completed training and been graduated from an accredited school of nursing, should she continue her studies in some special field; must she do so if she is expecting to make a worth-while livelihood?

In looking over a number of hospital and nursing magazines one finds in the "Positions Open" columns, that the demand is not

*Paper given by Mrs. Bessie Haskin of the Denver General Hospital, at the last annual meeting of the Colorado Hospital Association.

HAY FEVER

For Eighteen Years

Pollen Antigens
Lederle

have added evidence each year to their value in the prevention or relief from symptoms of Hay Fever.

Each year an increasing number of physicians have familiarized themselves with the Hay Fever problem and are relieving patients of their seasonal attacks.

Pollen Antigens Lederle are glycerolated extracts. They are uniformly stable so that the original strength of the antigen is maintained for a long period.

Remarkably few undesirable reactions have been reported following the many thousand injections of Pollen Antigens Lederle.

Added to the intrinsic value of the Lederle Pollen Antigens themselves is the convenient form in which they are offered to the physician. Treatment sets containing fifteen graduated doses eliminate the inconvenience of making various dilutions before injection.

Pollen Antigens— *Lederle*

are prepared from the individual pollens found by the physician to be responsible for the attack.

Complete treatment sets (15 graduated doses)—15 vials $12.00

The Lederle Laboratories maintain n Department of Allergy supervised by experts nnd welcome correspondence on all qaestions pertaining to hay fever in any locality.

Distributed by

HEALY & OWENS

1400 Larimer **Denver, Colorado**

LEDERLE LABORATORIES, INC.

New York

PRESCRIBE
KNOX
SPARKLING GELATINE
IN **DIETS** FOR **DIABETES**
LIQUID *and* **SOFT FEEDING**
REDUCING and ANEMIA

KNOX is pure, granulated plain gelatine with 85-86% protein content. Free from flavoring, coloring or sweetening—therefore combines safely and perfectly with fruits, vegetables and other foods for all diets.

KNOX *is the real Gelatine*

Data and Recipe Books on Request

KNOX GELATINE LABORATORIES, 418 Knox Ave., Johnstown, N.Y.

A delicious food-drink for *high-calory* feeding



Fortified by Vitamin D
Licensed by the
Wisconsin Alumni Research Foundation

COCOMALT is a delicious, high-calory liquid food, especially recommended during pregnancy and lactation, during illness and convalescence, and for malnourished children.

Prepared according to directions, Cocomalt adds 110 extra calories to a glass of milk—*increasing its food-energy value more than 70%*. Provides extra proteins, carbohydrates and minerals (calcium and phosphorus)—and contains not less than 30 Steenbock (300 ADMA) units of Vitamin D per ounce.

Comes in powder form, easy to mix with milk, HOT or COLD. In ½-lb., 1-lb. and special 5-lb. size. *Reasonable in cost.*

Free to Physicians

We will send a trial can of Cocomalt, *free,* to any physician requesting it. Just mail coupon.

Cocomalt

"Cocomalt is a scientific food concentrate of barley malt extract, selected cocoa, skimmed milk, sugar, whole eggs, flavoring and added Vitamin D."

ADDS 70% MORE NOURISHMENT (FOOD-ENERGY) TO MILK

(One ounce per glass or cup)

R. B. DAVIS CO., Dept. 43J Hoboken, N. J.

Please send me a can of Cocomalt without cost or obligation.

Name.....

Address.....

City..... *State*.....

FARES EAST

Lowest in years

		30-Day Return Limit	Oct. 31st Limit
Atlantic City, N. J.		$75.68	$110.09
Asheville, N. C.		62.54	79.45
Baltimore, Md.		71.56	103.62
Boston, Mass.	via Montreal	86.15	117.35
Boston, Mass.	via Albany or New York	87.80	119.75
Buffalo, N. Y.	via Standard Lines	61.70	89.75
Buffalo, N. Y.	via Differential Lines	60.05	87.35
Chicago, Ill.		49.75	59.65
Cincinnati, O.	via St. Louis	49.64	71.39
Cincinnati, O.	via Chicago	49.75	71.39
Cleveland, O.	via Standard Lines	54.49	79.27
Cleveland, O.	via Differential Lines	53.39	77.67
Detroit, Mich.		51.80	75.35
Montreal, Que.		73.14	103.47
Mountain Lake Park, Md.		63.89	92.15
New York City	via Standard Lines	76.97	111.97
New York City	via Differential Lines	74.77	108.45
Niagara Falls, N.Y.	via Standard Lines	61.70	89.75
Niagara Falls, N.Y.	via Differential Lines	61.06	88.63
Norfolk, Va.		74.86	105.65
Philadelphia, Pa.		73.41	106.79
Pittsburgh, Pa.		59.57	86.66
Purt Huron, Mich.		54.06	78.65
Portland, Me.	via Montreal	90.57	121.13
Portland, Me.	via Albany, N.Y. or Boston	94.90	122.60
Toronto, Ont.		60.49	86.22
Washington, D. C.		71.56	103.62

Similar reductions to many other points. Stop-overs permitted.

Burlington Route

RESERVATIONS

901 Seventeenth St. Phone KEystone 1123

S. R. Drury, *General Agent*

F. W. Johnson, *Ass't General Agent*

DENVER

only for a well-educated nurse, but for one who has specialized in some particular line. I cannot recall seeing an opening advertised for general duty nurses or for those having no special or advanced training.

There is much talk about over-education of nurses, but how often do we find an over-educated nurse? Often we find nurses who have exercised poor judgment, but this is true in any other line of work, and I do not feel that the blame can be laid at the door of over-education. These are times when any line of work asks the question—how well are you equipped? What background have you?

Of course, one might cite the time of Abraham Lincoln—we hear the comparison often—a wonderful man with few advantages and the president of these United States. Truly wonderful are the things he accomplished and the record he left, but that is no argument against education for the present day. With our increased facilities for education, high schools and colleges are open—regardless of matters of finance—to all who have the inclination to work. Hence today those people who accomplish things in the world without an education are the exception.

Nurses are most fortunate in that they have so many different activities in their profession; but the nurse today who has had special training in some field has an advantage that cannot be overlooked.

I think all will agree that most of the teaching is done on wards, so the supervisor must not only be an administrator, but also a teacher.

It is estimated that 12,000 nurses were graduated in the United States in 1931; over-production has already begun. The demand for higher educational requirements upon entrance, the elimination of allowances, and eventually the charging of tuition in all schools, and the raising of standards, will be the cure for over-production.

As we look over the nursing situation in the United States, it is interesting and encouraging to note the similarity of the early problems of the medical profession to the nursing problems of today. In the year 1905

NURSES
OFFICIAL REGISTRY

Established to Meet the Community's Every Need in Nursing

Hourly Nursing Service.

Under-Graduate and Practical Nurses Provided.

Positions Filled.

Information on all nursing service.

This registry is endorsed by the Colorado State Graduate Nurses' Association and the American Nurses' Association.

KEYSTONE 0168

ARGONAUT HOTEL

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

Hot weather . . . causes diarrhea, vomiting, dehydration and lowered resistance. This is the time to be *sure* about the baby's nourishment. Dryco lends itself to the requirements of the season.

(Diarrheal diseases in infancy and childhood are the cause of more deaths in early life than all the infectious diseases combined.)

Dryco is the choice of thousands of physicians in difficult diarrheal cases. It is unsurpassed as a transitional food, since it can be prepared to suit all degrees of solutions and concentrations demanded by the weakened digestion of the sick baby. The baby can be fed under reduced volume and with a highly digestible food without overburdening the stomach or overhydrating the system.

With the increased Vitamin D content of Dryco, babies are protected against the dangers of rickets and avitaminosis.

THE DRY MILK CO., Inc., Dept. C, 205 East 42nd Street, New York

PRESCRIBE

DRYCO

Made from superior quality milk from which part of the butterfat has been removed, irradiated by the ultraviolet ray, under license by the Wisconsin Alumni Research Foundation, (U. S. Patent No. 1,680,818) and then dried by the "Just" Roller Process.

ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED

COUPON

THE DRY MILK CO., Dept. C,
205 East 42nd St., New York.

Gentlemen: Please send special reprints: Diarrhea—Summer Complaint; Acute and Habitual Vomiting in Infants; Irradiated Milk in the Treatment of Rickets.

Name _____

Address _____

City _____

State _____

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC
BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

MERCUROCHROME
220 SOLUBLE
in
OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

there were 166 medical schools graduating about 8,000 students, a certain portion of these 8,000 coming from class B and C schools. This number has been reduced to 66 schools graduating between 5,000 and 6,000 students a year, whose qualifications are recognized by A. M. A. and who are eligible for internship in approved hospitals. Higher educational requirements and fewer but better medical schools have been the solution for their problem, and when we see the splendid results in the medical profession it is impressed upon us that we will do well to follow their example. How many medical students, upon graduation, are sufficiently prepared to enter the professional field until they have served an internship of from one to three years? Why then should a nurse, after only three years of study in a training school, feel equipped to accept the responsibility of supervisory or administrative work without specialized training?

The time has been when the specialist was an exception, and the general practitioner was a product of the medical school, just as the private duty nurse is the product of a training school. We can be very much encouraged that the trend is more and more toward specialization in all vocations and professions.

You may ask whether we are to have left any private duty nurses. Just what happened in the medical profession will happen in the nursing profession. There are still general practitioners; there will still be general duty nurses. True it is that the field is not large enough for everyone to specialize, but there are always those who prefer general or private duty. Therefore, this phase of the problem will engender its own solution.

Plan NOW to attend the State Meeting in Estes Park, September 8, 9, 10. It will be more than worth your while as a scientific treat, as a rendevous with old friends, as a vacation.

The rate of growth is dependent to a great degree on the presence or absence of infection.

SPENCER SURGICAL GARMENTS
BELTS for WOMEN or MEN
With or Without
Ptosis
Hernia or
Kidney
PADS
or
Sacro Iliac
Support

SPENCER CORSETS of DENVER

218 EMPIRE BLDG.

Expert corsetieres ready to serve you for either hospital or bed-ridden patients. Call TAbor 6289. No extra charge.

TAbor 6289

Conway's
FLORAL SHOP
1064 SO. GAYLORD
PEarl 0622

SUMMER BRIDES

Let us give you an estimate on any wedding decorations and bouquets which will be used in your family.

SANITARY SPECIALTIES COMPANY

2819-21 Larimer St. *Manufacturers and Jobbers* *DENVER, COLORADO*

OBSTETRIC NAPKINS
CRESOLIS COMPOSITUS
DEODORANTS
FLOOR WAXES

SANITATION MEANS HEALTH AND EFFICIENCY

NEUTRAL CLEANING SOAPS
INFANT'S LIQUID SOAP
LIQUID TOILET SOAPS
GREEN SOAP U. S. P.

HOSPITAL SOAP EQUIPMENT

"Everything for the Sanitation and Maintenance of Hospitals and Institutions"

TAYLOR-MADE
Kenlastic
REG. U.S PAT OFF
CORSETS

ARE MADE TO SUIT EVERY NEED FROM THE LIGHTEST WEIGHT GIRDLE TO THE HEAVIER SURGICAL CORSET

ABDOMINAL BELTS WITH CORSET BACK

SPINAL CORSETS WITH PELVIC STEELS AND SHOULDER STRAPS

A NEW KENLASTIC SEAMLESS STOCKING IS MADE WITH EXTENSION HEEL

CHAS. B. E. TAYLOR

ELIZABETH KENDRICK TAYLOR

204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

A Real Flush Valve



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter



Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen or Silk. Washable as underwear. Three distinct types, many variations of each.

The Picture Shows "Type N"

Storm belts adaptable to all conditions, Ptosis, Hernia, Pregnancy, Obesity, Sacro-Iliac Relaxations, High and Low operations, etc.

Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia

Quality of Medical Services Deteriorates Under Compulsory Health Insurance*

In preceding articles Social Insurance as a whole has been considered. In this and subsequent articles our observations will deal more particularly with Compulsory Health Insurance, one phase of Social Insurance. The chief danger to medical progress and efficient medical service to the American public comes from that small group who wish to establish lay bureaucratic control over the private practitioners of medicine and dentistry.

The state exercises a legitimate and proper function in public hygiene and sanitation, the teaching of personal hygiene in schools and colleges, in the medical care of paupers, criminals, and the indigent in general, but whenever and wherever it has entered into the private practice of medicine it has always resulted in inefficiency. Even in institutional work, with the possible exception of University Clinics, the medical service rendered by the government is rarely excellent or even good, nearly always mediocre and often times even worse.

The health, happiness, prosperity, and efficiency of the citizenship of any nation depends more upon the integrity, ability, unselfishness, and enthusiasm of the medical and dental professions and upon the quality of medical and dental services rendered to the people than upon any one other factor. Any change in the practice of medicine and dentistry which will in any way hinder these professions from giving their best services will eventually react unfavorably upon the whole nation. That state medicine and Compulsory Health Insurance actually will and does lower the general quality of medical and dental services is supported by reason and experience. While it may level up a little from the bottom it unquestionably levels down from the top and it is this leveling down that will surely stop medical progress.

Medical progress depends not so much upon the rank and file of the profession as

*One of a series of articles on Social Insurance by Dr. Edward H. Ochsner.

AETNA

COMPLETE MALPRACTICE PROTECTION

By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE
AETNA LIFE
INSURANCE CO.
Fred E. Breisch, Manager
529 Midland Savings Building
KEystone 6205

Thirty-nine years in the same location

SELLING HIGH-GRADE

COAL, WOOD GRASS SEED FERTILIZER

Honest Weight *Prompt Delivery*

The DeSellem Fuel and Feed Company

PH. TAbor 3205
3463 Walnut St. Denver, Colorado



Thank You Doctor

The baby is doing splendidly and Tom and I are so pleased.

When you first told me that Junior would have to have bottle feedings I thought I was due for a lot of trouble and work because I remembered what a time my sister had when her baby was on the bottle. She sent for a formula that was advertised to be recommended by many authorities, but something was wrong. She used to spend hours in her kitchen mixing this, that and the other thing. And in spite of all her trouble, her baby fretted and cried and didn't gain properly.

This S.M.A. you have prescribed for my baby is a new one to me. In fact, I have never seen it advertised. But, believe me, it works like a charm and it is *so* simple to prepare—no fuss or bother at all.

Junior reaches to take the bottle right out of my hands and drinks it all up. And he's the *best* child. Always happy when he's awake, and sleeps the whole night through.

And talk about a picture of health! I believe he would take first prize in any baby contest.

I'm going to bring him down to your office Wednesday as you suggested. That S.M.A. folder you gave me says even a breast fed baby should be under the supervision of a physician and I think myself that it's better to *keep* the baby well than to wait until trouble starts.

We certainly want to thank you for bringing our baby along so well, Doctor. It increases our confidence in you as our family physician. Tom has already "said it with dollars", but I wanted to thank you personally, too.

And I'm going to persuade Mrs. Brown,—that's my neighbor with the baby that's not gaining—to come along on Wednesday so you can prescribe the proper diet for *him* too.

Trial supply of S.M.A. Because S.M.A. has won favor un- ***offered without charge*** der typical conditions we are quite willing that you should try it in your own practice and under your own control. To make this easy we offer you a generous trial supply without charge or obligation. Simply attach the coupon to your prescription blank or letterhead.

ACCEPTED AMERICAN MEDICAL ASSN.

S.M.A. Corporation, 4614 Prospect Avenue, Cleveland, Ohio
Please send me:

☐ Trial supply of S.M.A. ☐ New S.M.A. prescription pad.

☐ Fourth revised edition of "Milk Allergy" Booklet, a resume of current literature on milk allergy with information concerning Smaco Hypo-Allergic Milks.

Attach coupon to Rx blank or letterhead. 23-82

THE SPECIAL CARBOHYDRATE FOOD WHICH COMBATS INTESTINAL PUTREFACTION



LACTO-DEXTRIN

(Lactose 73% — dextrine 25%)

Provides the right soil for the growth of a normal aciduric flora — Nature's method — more effective — more lasting.

Samples and literature on request.

The Battle Creek Food Co.
BATTLE CREEK MICHIGAN

Announcing *The Introduction of*

THE STILPHEN AIR CONDITIONING UNIT

Dependable—Simple—Economical
Particularly adapted for Hospitals—Institutions
Write for circulars illustrating and describing this machine

C. A. Stilphen Engineering and Manufacturing Co.
1129 Eighteenth St., Denver, Colo.
KEysotne 0929
Exhaust Fans for Ventilation



Nature Made It!

ORIGINAL MANITOU Sparkling Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The Manitou Mineral Water Co.
Manitou, Colorado

upon occasional great men with vision. If we unduly hamper these great medical minds, medical progress must cease. The quality of medical services received by the people in general depends in large measure upon the quality of teaching which the rank and file of the profession receive and upon the enthusiasm and the ideals which are instilled into them by their teachers. Men of great ability can do their best work only if absolutly free, and a physician under lay bureaucratic control never is entirely free. Andrew Carnegie, one of the most successful men of modern times in the best sense of that word, makes the following statement in his Autobiography: "Thereafter I never worked for a salary. A man must necessarily occupy a narrow field who is at the beck and call of others."

One of the continually recurring misstatements in the Compulsory Health Insurance propaganda is that it encourages personal hygiene and consequently disease prevention. Nothing could be farther from the actual facts. Which person is more likely to take care of his teeth—the one who gets his dental services free, or the one who has to pay for it out of his own pocket? Those who claim the former just do not know human nature.

One of the chief causes of wonder of the Germans during the World War was the splendid condition of the teeth of the American soldiers as against the almost universally poor teeth of the Germans. Why this great difference? The chief and principal reason is that American citizens have their teeth taken care of by private dentists who take a very personal interest in each individual patient. Most American dentists and physicians are spending much of their time instructing their patients in general and oral hygiene. Contrast this with the work of the Krankenkasse physician of Germany who asks his patient one or two questions, then reaches into a file, hands him a typewritten prescription and gets rid of him just as quickly as he can and as he must, if he is to see fifty patients in an afternoon office period of two hours; and this he is by force

BRONZE TABLETS
BENEFACTOR'S MEMORIAL PLATES FOR HOSPITALS
IN STAMPED BRASS OR CAST BRONZE
BRASS AND BRONZE SIGNS
FOR THE PHYSICIAN
SACHS-LAWLOR
DENVER
ESTABLISHED 1881

APEX FIXTURE CO.

Cabinet baths and special bath fixtures made to order for Hospitals, Sanitariums and Physicians.

628 15th St., Room 12 Denver, Colo.

MODERN AMBULANCE SERVICE *for* MODERN NEEDS



AMERICAN AMBULANCE CO.
YORK 0070 • 1860 DOWNING ST • DENVER, COLORADO

There Must Be a Reason Why

Over FIFTY OF DENVER'S LEADING Furniture Dealers, Upholsterers, Warehouses, Dry Cleaners, Furriers, Rug Cleaners

USE AND RECOMMEND

"ARABIAN"

ODORLESS MOTHPROOF

YOU, TOO, Should DEMAND This GUARANTEED-FOR-LIFE PROCESS

Odorless . . . Colorless . . . Stainless

Will not dry clean or wash out—Only one application necessary

Look for the "Arabian" Sign in Your Dealer's Store. If He Cannot Supply You, Call

Manufactured and Guaranteed by

Arabian Chemical Co.

509 17th St., Denver. Phone MAin 4657

SOAPS Gets It TRADE MARK POWDERS

INSTITUTIONAL SANITATION

Hospitals, sanitariums everywhere find that "GETS IT" in its various forms can be relied upon to clean and purify any and every variety of surface in and out of doors.

PAINT CLEANER—For washing woodwork of all kinds, linoleum and floors. Porcelain, white enamel, stoves and frigidaires.

WHITE CREAM SOAP—Made of the purest of material. Will not harm hands. This soap is used by The City and County of Denver for washing painted walls, scouring floors, stained and spotted furniture.

Medicated Hand Soap, Scouring Soap Powder, Auto Soap, Glass Bright Powder and other Famous "GETS IT" products at wholesale prices direct to you.

Phone your requirements—get our prices.

FERRIN SOAP MANUFACTURING COMPANY

1948 LAWRENCE ST. TAbor 8733 DENVER, COLORADO

THE TULANE UNIVERSITY
OF LOUISIANA
Graduate School of Medicine
Approved by the Council on Medical Education of the A. M. A.
Postgraduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

24-HOUR SERVICE
AMBULANCE *and*
PULMOTOR SERVICE
DAY AND NIGHT PHONE
Main 830
John E. Wylie, Mgr.
112 Exchange Place, Colo. Springs, Colo.
Packard Invalid Sedan
Regular Equipped Ambulance

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5111
DAY STORAGE $5 PER MONTH
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

"Say it with flowers"
Park Floral Co.
Phones M. 1713-1714 1643 Broadway

of necessity compelled to do if he is to make a living for himself and his family at twelve cents an office consultation. Then again the claim is made that Compulsory Health Insurance examinations are more thorough. This, too, is a statement contrary to fact and to reason when one realizes that the sort of office consultation above described gives the physician the same pay as a thorough physical examination does. No man can afford to make a careful, painstaking examination for twelve cents—not even in Germany, where living expenses are almost as high as in this country. One "Krankankasse" physician in Berlin told me personally that he made twenty-three house calls in four and one half hours, or at an average rate of one in a little less than twelve minutes, driving from house to house, going up from one to four flights of stairs each time, examining a patient and prescribing for him.

Brend states that in England the average time spent by panel physicians in making a diagnosis is from three to four minutes. Another English writer in commenting on the above facts rightly observes that these are not abuses of Compulsory Health Insurance, but inherent faults of the system.

We have all repeatedly seen and heard the statement that 70 per cent of the American people—namely, the low and moderate income classes—are not getting adequate and efficient medical services. Where those who make this statement get their statistics no one has ever been able to find out. The fact is that there are no statistics available on this point. From this it must be evident that the only place they can get these figures is from the depths of their fertile imaginations.

If we stop to investigate the source of these statements, we invariably find that they emanate from two classes of individuals—namely, a certain type of ultra medical specialist, whose only experience is or has been with the extremely rich whom he charges fancy, exorbitant fees and with paupers whom he treats in charity hospitals. As a consequence he has had no personal experience with patients with moderate incomes

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

MATCHED OFFICE SUITE

IN PERIOD DESIGN

at just 1/2 price

Purchased from a Grand Rapids manufacturer who discontinued his line of office furniture and offered the salesroom samples at exactly one-half the regular prices.

This is a professional man's suite consisting of flat top desk, narrow refectory table, cabinet, carved four-fold screen, swivel chair and arm chair; in carved English oak with deep red leather.

STANDARD PRICE $780.00. OFFERED FOR $390.00

HOWARD LORTON INC.

724-746 SPEER BOULEVARD

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO-ENGRAVERS AND MAP MAKERS
KEYSTONE 5634 -830- 10TH ST.
DENVER, COLO.

and has no right to express an opinion on this subject. The other class who repeat these figures are usually persons who never have had personal experience with the practice of medicine and hence their opinions are practically worthless.

I maintain that the poorer classes of patients get better services in this country than they do in those countries of the world that have Compulsory Health Insurance and that their medical requirements are at least as efficiently met as are their food, clothing, and particularly housing requirements. This phase of the problem is an economic one and can not be solved by a palliative such as Social Insurance.

Some fifteen years ago when the price of eggs and chicken feed were at their highest, I wrote my farmer and asked him why he was not sending us any eggs. I received the following laconic answer: "The pullets look good but lay no eggs." Superficially examined, Compulsory Health Insurance "looks good," but unlike my pullets it has laid many eggs, most of which are addled.

When we substitute governmental control in medicine and dentistry for independent individual action, we stifle self-expression, individuality, initiative, courage, confidence, enthusiasm, and industry. We, as a nation, are on the whole already over-standardized. The very ones who wail the loudest about the evils of mechanization are often the very ones who clamor the most for more government control. Excessive bureaucratic and lay control have much the same spiritual effect upon the professional man as over-mechanization has upon the intelligent craftsman. They both have a tendency to crush out fortitude, ingenuity, and pride of achievement in those engaged in these vocations. With some, standardization has become almost a fetish in spite of the fact that when pushed too far it always results in mediocrity. The efficient successful practice of medicine always has been and always will be a personal unstandardized affair.

That the quality of medical services has deteriorated in those countries which have



The MATCHETT

979 DOWNING ST. YOrk 5444

A refined, exclusive home for old people, convalescents and mental cases. Competent nurses day and night. Beautiful rooms, well ventilated and comfortable. Reasonable rates in accordance with service and care.

NOT AN INSTITUTION
Established Over 30 Years

MRS. CAROLINE M. MATCHETT
Formerly Mrs. Caroline Gregerson

YEAST-A-BRAN

A delightful and refreshing ice cream product. Contains bran, yeast, chocolate and ice cream. Price, five cents per bar, sealed in sanitary container and sold at all drug store soda fountains. Never mussy, appreciated by young and old alike.

YEAST-A-BRAN DISTRIBUTORS

M. J. Maib, Manager

1621 18th St. Main 3151 Denver, Colo.

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

Office Phone M. 321 Res. Phone M. 4422-R

GEO. LOXAM

Surgical and Invalid Supplies

20 Independence Bldg.
COLORADO SPRINGS, COLO.

Physicians and Surgeons' office supplies, Surgical Braces and Supports, Operating Tables, Surgical Dressings, Enamelware, Rubber Goods, Laboratory Supplies.
Instruments Repaired

Trade discounts to Physicians, Surgeons

COLORADO COLLEGE of PODIATRY

1554 California St., Denver

Bertha DeWolfe, D.S.C., Dean

Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

CUSTOM MADE

NU-BONE

SUPPORTING OR FOUNDATION GARMENTS

For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.

RUBY A. BETTS

22 Lincoln SPruce 7998

Compulsory Health Insurance is due to many causes, among which may be mentioned the excessive number of calls upon the time and energy of the physician. Those who receive free medical services are constantly running to the physician for every trifling ailment or compelling the physician to make many unnecessary calls at the homes. Every Krankenkasse physician who has been interviewed has stressed this fact. Baeumer states in his book that between 65 and 70 per cent of all calls are unnecessary, consume the time and energy of the physician and the resources of the Krankenkasse, and prevent adequate medical services and hospital care to the really sick. Liek in his book says the number of trivial conditions such as "microscopic skin abrasions, etc.," disgusted him so much that he retired from the service. This abuse has grown to such proportions in Germany that the government department has been compelled to issue new regulations to the effect that the insured have to pay a certain fee out of their own pockets for each prescription. This again has given rise to new abuses. A common sequence of new regulations to correct one abuse is to create an opportunity for newer ones. In England unnecessary night calls became so common that many panel physicians disconnected their phones between 10 p. m. and 7 a. m. A fine state of affairs if a patient has a strangulated hernia or an attack of gall stones, or acute appendicitis at midnight! We have all repeatedly seen and heard the statement that the workers of this country do not have medical services when they most need them—namely, at the beginning of an illness. The claim is made that were prompt services available at this time much serious illness could be avoided. Conclusive proof that private practice is more prompt than Compulsory Health Insurance practice is evidenced by the practice in England of avoiding night calls, and by the fact that the percentage of pus appendix cases, which necessitate draining, is much greater in Germany than in the United States. We all know how the mortality rate is increased by letting acute appendix cases progress to suppuration before they are op-

« CAMP »
SURGICAL SUPPORTS

Competent Fitter

1621 Tremont TAbor 2049

MRS. SYBIL CASSELL

Ethical cooperation with the medical profession.

KING'S ICE CREAM CO.

EVERY FLAVOR

Produced under ideal sanitary condition.

Recommended by Discriminating Physicians

2045 SOUTH UNIVERSITY

PEarl 2622 Denver, Colo.

To the Medical Profession, Hospitals, Sanitariums and Institutions of Colorado and Wyoming:

We have established a distributing headquarters for your requirements and are now able to give quick service in uniforms for nurses and other employees as well as physicians and surgeons office and operating garments.

We use only the finest in quality material. Longer usefulness and the best appearance are natural results. The price? Not more than you are asked for cheap, shoddy, indifferent material and workmanship. It's the repeat orders that count.

E. F. STEPHENSON CO.

232 COOPER BLDG. MAIN 7226 DENVER, COLO.

The Barbour Combination Desk and Invalid Table

$4.50 Retail Price

INDISPENSABLE FOR THE BEDRIDDEN OR CONVALESCENT

Used in Bed for Eating, Reading, Writing, Sewing, Drawing or Studying

THE FLOYD BARBOUR CO.

2537 West Colfax Avenue Denver, Colorado

Send for descriptive pamphlet.

CAMP SURGICAL AND SEMI-SURGICAL SUPPORTS

Maternity Post Operative
Convalescing and Ptosis Supports
Abdominal Belts
Sacro-Iliac Binders, Orthopedic Back Splints

Mrs. J. M. Blinn Pfister, *Nurse*
SURGICAL CORSETIERE
Phone Main 7530
Hours, 7 a. m. to 1 p. m.
1515 Glenarm St. Denver, Colo.

COLVIN BROTHERS
MEDICAL BOOKS
Ph. MA. 3866. 221 Republic Bldg., Denver

NEW BOOKS:
Marriott—Infant Feeding
Ballenger—Ear Nose and Throat
Buckstein—Peptic Ulcer X-Ray
Crossen—Diseases of Women
Sante—Chest X-Ray

DENSIN TOOTH POWDER
A Natural Dentrifice
Serves Three Purposes:
MOUTH WASH
GUM HARDENER
TOOTH CLEANSER
A powder that should please the most discriminating.
For sale by all druggists—thirty-five cents
SNYDER LABORATORIES
228 E. & C. Bldg. Denver, Colo.

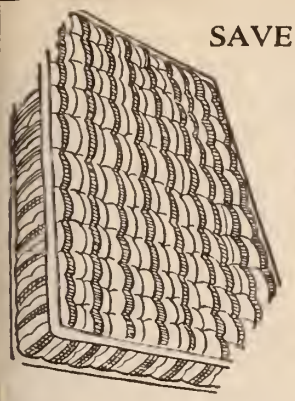


erated and how much longer the period of hospitalization is in suppurative cases. If acute illnesses had more prompt and more efficient treatment in Germany, for instance, than in the United States, suppurative appendix cases should be much less frequent, the mortality rate should be lower and the morbidity shortened. As a matter of fact, the reverse is the case which proves rather conclusively that medical services in the United States are more efficient than those in Germany. Such abuses result in endless rules and regulations. Rules that accomplish little except to cramp the individuality and personality of the conscientious physician, wear him out with paper work and leave little time and energy for professional study and advancement. One official described his plight in the following words:

"I've settled into official routine; I'm fixed there hard and fast. It's so with many of us. Most of us recognize the hopelessness of ever pulling out. As I sometimes confess, I am merely one of the unburied dead."

That Compulsory Health Insurance does not in fact prevent sickness nor reduce economic loss as the result of sickness is also proved by the following facts. Before the World War the average loss of time for sickness of the American laboring man was six and two-tenths (6.2) days per year; the German's, nine and two-tenths (9.2) days; the Austrian's, nine and five-tenths (9.5). We are credibly informed that since 1923 the loss of time in Germany has increased another 80 per cent above the nine and two-tenths (9.2) so that it now stands at approximately sixteen and five-tenths (16.5) as against six and two-tenths (6.2) in America. A fine showing for Compulsory Health Insurance after forty-eight years of operation!

Let us see what some of the German and English think about the scheme. A high salaried German health insurance official said the following in 1927: "Health insurance is the oldest branch of German Social Insurance. The sickness insurance law of June 15, 1883, was the corner-stone of the



SAVE TWO-THIRDS

By having us Renovate your old Mattresses, Pillows, Comforts, Feather Beds and Box Springs like new.

We convert your old Mattresses into new "SPRING CENTERS"

Also Upholstering work done very reasonably.

Union Mattress & Pillow Co.

2640 Larimer Street
Denver, Colorado
Tabor 5989

for Quality
Zinc Etchings
Color Plates - Half Tones

Seeleman-Ehret
Photo Engravers

Tabor 2701 — 1950 Champa Street

Denver Colorado

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically
Special classes for Nurses.

Limited Class Now Forming
Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R — *Elna Hoagland, Pres.* — 3762 High St.

PRESCRIPTION PHARMACISTS

to the members of the

COLORADO STATE MEDICAL SOCIETY

City	Name and Address	Telephone
Denver	R. K. ANTHONY, 4901 Lowell Blvd.	GAllup 0294
Denver	BAIRD Pharmacy, 3850 Federal Blvd.	GAllup 0549
Denver	BROTHERS Pharmacy, 5001 E. Colfax	YOrk 2171
Denver	ESHER Drug Co., 2335 E. 28th Ave.	YOrk 0296
Denver	IMPERIAL Pharmacy, 319 16th St.	KEystone 1550
Denver	McGOWAN Pharmacy, 801 Colo. Blvd.	FRanklin 5391
Denver	MUDGE Pharmacy, 3801 Walnut St.	TAbor 4523
Denver	SIXTH AVE. Pharmacy, 600 E. 6th Ave.	SPruce 9706
Englewood	JOHN T. HEPPTING, 3398 S. Bdwy.	Englewood 744
Littleton	LITTLETON Drug Co., Littleton	Littleton 133
Grand Junction	COPELAND'S Apothecary, 523 Main St.	Grand Junction 39
Salida	WAGGENER'S Pharmacy, Salida	Salida 400

Fine Upholstered Furniture Made to order

Furniture repairing of all Kinds

Henry Meyer

Upholsterer and Furniture Manufacturer

DENVER

538 East 17th Ave., at Pearl St.

Phone TAbor 4087

L. D. DUTCHER Phone 2995-R



DUTCHER AMBULANCE SERVICE

BALLOON EQUIPMENT

INVALID SEDANS

315 West 4th Street Phone 390

PUEBLO

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of

ORTHOPEDIC APPLIANCES

Trusses, Braces, Abdominal Supports

Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.

Phone KEystone 2702

Denver, Colo.

proud building for which we were envied by foreign nations before the war. Unemployment insurance will, I hope in the near future, be the capstone of the building." To which Edwin Liek, a practicing physician of Danzig, makes the following retort: "This is an expression familiar to physicians, words that we have frequently heard during the past four decades. Only now they affect us differently. In the beginning the doctors believed these dulcet tones; today only parasitic physicians or pure fools join in this festive song." And again he says, "Social Insurance is today organized to fill the feed trough of bureaucratic drones." At a recent meeting of the Trade Union Council in Nottingham, England, a resolution was passed unanimously demanding that the government overhaul the Department of National Health.

That the average American citizen is getting better medical services than are the citizens of those countries which have had Compulsory Health Insurance the longest is borne out by the cited statistics, the quoted opinions as well as by a rather extensive personal experience both in this country and in Central Europe.

(The next two articles will show how Social Insurance undermines national character.)

IMMATERIA MEDICA

The absent-minded professor called his biology class to order shortly after the lunch hour.

"Our special work this afternoon," he said, "will be cutting up and inspecting the inward workings of a frog. I have a frog here in my pocket to be used as a specimen."

He reached into his pocket and pulled out a paper sack, shook its contents on the table, and out rolled a nice looking ham sandwich.

The professor looked at it, perplexed, scratched his head and muttered: "That's funny; I distinctly remember eating my lunch."

* * *

"My chicken laid an egg!" boasted Willie, who had a bantam hen.

"Huh, that's nothing," the mayor's son retorted "My father laid a cornerstone yesterday."

* * *

Guide: "Why didn't you shoot at that tiger?"

Timid Soul: "Er, er, he didn't have the right kind of expression on his face for a rug."

"Good morning, my son," said the census taker. "You seem to be a bright little shaver. Have you any brothers or sisters?"

"Yeah, I got lotza brudders and sisters. Tere's seven of us boys and eight girls."

"My, my. The stork must visit you often."

"Visit us nutten! he lives here."

* * *

"You went to the concert last night, didn't you? How did you find the orchestra?"

"Well, Paul Whiteman just stepped aside and there it was."

* * *

"How were you able to recognize your wife when the beauty surgeon got through with her?"

"Why she came up to me and said: 'Honey, you owe the beauty surgeon five hundred dollars."

* * *

"My wife and I quarrel two hours every day."

* * *

First Nudist: "Who sent you here, your doctor?"

Second Nudist: "No, my broker."

* * *

"What are the pre-meds scrubbing that frosh for?"

"So they can save a biology field trip for specimens."

* * *

College Senior: "I would give five dollars for just one kiss from a nice little girl like you."

Innocent Co-ed: "Oh, how terrible."

College Senior: "Did I offend you?"

Innocent Co-ed: "No, I was just thinking about the fortune I gave away last night."

* * *

Teacher: "Willie, what is an adult?"

Willie: "One that has stopped growing except in the middle."

* * *

"Do you take any periodicals?" asked the new minister on his first round of parish visits.

"Well, I don't myself," replied the woman, "but my husband takes 'em frequent. I do wish you could get him to sign the pledge."

* * *

Cashier: "How's business with you?"

Lad: "I have no complaints."

Cashier: "That's wonderful."

Lad: "On the contrary. I work in a complaint department and if there aren't some soon they'll fire me."

* * *

"Why do you think your husband is the cause of your indigestion?"

"He doesn't agree with me."

WANTADS

POSITION WANTED

Registered technologist and registered x-ray technician with eighteen years' experience in tuberculosis work, the last sixteen years at Agnes Memorial Sanitarium. Now seeking location due to closing of the sanitarium on July 1, 1932. Margery M. Malins, 2265 Forest St., Denver; telephone FRanklin 1997-J.

FOR SALE

Office equipment, library, surgical and laboratory instruments of the late Dr. Eugene H. Brown of Pueblo. Material may be purchased either as a whole or in units. For details communicate with the undersigned. Mrs. Julia A. Brown, 221 Van Buren Street, Pueblo, Colo.



The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

WINDSOR-MEADOW GOLD

MAin 5131

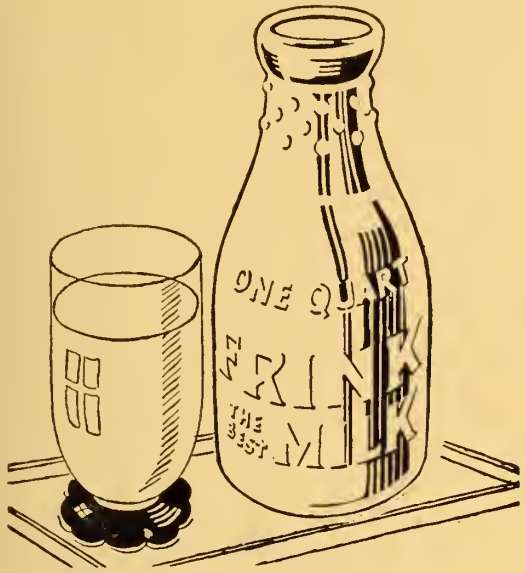
ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company 27
Ambulance Service Co. 30
American Ambulance Company 29
American Medical and Dental Association ..... Cover 2
Apex Fixtures Company 29
Arabian Chemical Company 29
Art Cast Products 4
Baldwin, Arthur L. 20
Barbour, Floyd L. 35
Barcley Corset Shop 11
Battle Creek Food Company 28
Betts, Ruby A. 34
Bide-A-Wee 16
Boulder-Colorado Sanitarium 14
Carlson-Frink & Company ..... Cover 3
Cassell, Sybil 35
Cheesman Park Convalescent Home 16
Chicago, Burlington & Quincy R. R. 22
Children's Hospital 13
Cocks-Clark Engraving Company 36
Cocomalt 21
Colorado Artificial Limb Company 32
Colorado College of Podiatry 34
Colorado Springs Psychopathic Hospital 12
Colvin Brothers 36
Conway's Floral Shop 25
Corrective Foot Fitters ..... Cover 4
Cragmor Sanitarium 15
Cutter Laboratory ..... Cover 4
Daniel-Smith Engraving Company 32
Davis, F. A. Company 1
Deep Rock Water Co. ..... Cover 3
Denver Ice and Cold Storage 7
Denver School of Swedish Massage 39
DeSellem Fuel and Feed Co. 27
Dry Milk Co. 23
Dutcher Ambulance Service 38
Ferrin Soap Manufacturing Company 29
Fontenelle Private Rest Home 19
Garden Farm Dairy 31
Glockner Sanatorium 13
Gore, Chas. T. 16
Graduate Nurses' Club 23
Gray and Palmer 18
Hagberg's Convalescent Home 16
Home of Convalescents 17
House Beautiful 19
Hynson, Westcott & Dunning 24
Jones, William 38
King's Creamery 35
Knox Gelatine 21
Lederle Laboratories 21
Lilly, Eli & Company 8
Lorton, Howard, Inc. 31
Loxam, George 34
Magnolia Villa 17
Manitou Mineral Water Company 28
Matchett, Mrs. Carolyn 19
McClelland Home 17
Mead, Johnson & Company 6
Meeker Home 17
Meyer, Henry 38
Miles & Dryer Printing Company 9
Monarch Metal Weather Stripping Co. 9
Oderine Distributing Company 18
Old Homestead Bread Company 2
Park Floral Company 30
Parke, Davis & Company 3
Pfister, Mrs. J. M. Blinn 36
Porter Sanitarium 11
Presbyterian Hospital 14
Prescription Pharmacists 37
Roche Ambulance Service 9
Rowlands, Ann 19
Sachs-Lawlor 29
Sanitary Specialties Co. 25
Seeleman-Ehret Photo-Engraving 39
St. Francis Sanitarium 16
St. Joseph's Hospital 15
Schayer, Max S. 32
Shirley Garage 30
Shirley-Savoy Hotel 33
S. M. A. Corporation 27
Snyder Laboratories 36
Spencer Corsets 25
Stanley Hotel ..... Cover 1
Stephenson, E. F. 35
Stilphen Engineering Co. 28
Storm, Katherine L., M.D. 26
Taylor, Charles B. E. 25
Therapeutic Bath Institute 24
Tobey's, Mrs. Rest Home 18
Trowbridge Training School 34
Tulane University 30
Union Mattress and Pillow Company 39
United States Fidelity & Guaranty Co. 9
Wantads 38
Western Flying Service 11
Western Newspaper Union 20
White Flushing Valve Co. 26
Windsor Farm Dairy 39
Woodcroft Hospital 12
Yeast-A-Bran 33



FRINK

Golden Flake BUTTERMILK

REFRESHMENT that lingers! Its tempting, zippy tang is a decided aid to jaded appetites and its chemistry an aid to digestion. Frink buttermilk is fresh every day. Drink it regularly yourself and prescribe it as the patient's requirements indicate.

Product of

The

CARLSON-FRINK CO.

MAin 0111

Denver's largest and cleanest home-owned dairy.

It Is Easy to Mistake the Purity of Drinking Water

HEALTH authorities note the danger of thinking water pure when it is merely cold. Dr. Frank Wells Crawford in his valuable and interesting book, "Preventable Diseases," says "that fully 50 per cent of all bowel disorders, including Typhoid and Dysentery, are the direct results of drinking water that is thought to be perfectly pure.

"The thing about drinking water that seems to deceive even careful parents is the false notion that when drinking water comes cold from the tap it is probably pure water. Nothing could be further from the truth. Merely because water is cold is no indication whatsoever as to its purity. The water might be at a freezing temperature, and still be infected with germ life. As a matter of fact, many disease germs actually thrive in ice."

Speaking before an assemblage of doctors and hygienists, Doctor J. C. Williams, health authority in New York City, some time ago labeled impure drinking water to be the most dangerous enemy of health, and the greatest "man killer" in all history.

"When our army was in France," says Dr. Williams, "it was a court martial offense for a soldier to drink any water not previously certified by medical officers, and this was a wise provision. Water, only slightly impure, will kill more human beings than all the ravages of war."

At a season when so many bowel troubles become prevalent, many physicians prescribe both Deep Rock Water and Deep Rock Distilled Water.

Deep Rock Water Co.

614 27th St. TAbor 5121

Denver, Colo.

(Delivered in handy half gallon bottles)

CORRECTIVE FOOTFITTERS

44 South Broadway Phone Spruce 5276

Denver, Colorado

Corrective shoes with double arch supports for the entire family, fitted by expert and experienced foot fitters from an orthopedic standpoint and according to the type of shoe best adapted to each foot. Eliminate your foot troubles by wearing shoes fitted correctly and scientifically. We co-operate with the medical profession through our licensed chiropodists and trained shoe-fitters, as 90 per cent of our fittings are with people having foot ailments.

Special lasts made for abnormal feet. X-ray service at our Denver store. Write us directly for catalogue and details for ordering by mail or for interview with our traveling representative when in your territory. Mail orders given special attention.

Rabies Vaccine (Cutter)

SEMPLE METHOD

The Cutter Laboratory pioneered the manufacture of the Semple Vaccine in the United States. Sufficient evidence that this judgment was sound is contained in the fact that of the fifteen biological manufacturers whose Rabies Vaccine is accepted by the Council on Pharmacy and Chemistry (1931 new and non-official remedies), all but three now supply the Semple Vaccine.

Available in 7 dose packages at your nearest Cutter depot. Each dose is in a separate ready-to-use syringe.

Wire The Cutter Laboratory, Berkeley, Los Angeles, Seattle, Chicago, Denver, Fort Worth, San Antonio, New Orleans, for immediate shipment.

DOSAGE SCHEDULE

Licks upon abraded surfaces; superficial bites through clothing—One dose each day for 14 days.

Slight bites on neck or shoulders; severe lacerated bites; multiple bites; bites on parts unprotected by clothing—Two doses each day for first seven days, and one dose each day for the next seven days.

Head bites; severe bites of neck or shoulders; severe or multiple bites of hands—Two doses each day for 14 days.

The CUTTER Laboratory

Established 1897

Berkeley, California

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 9 SEPTEMBER, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

THE N. ACADEMY OF MEDICINE
SEP 8 1932
LIBRARY

TABLE OF CONTENTS

Editorials
Your Membership Privileges 349
Don't Miss the Meeting in Estes Park....350
Cooperation with the University Faculties...350
Experiments of a Socialistic Nature 350
Cost of Irregular Healers 351
A Friend of the Profession 351
Radio Commends the Physician....351
Oxygen Therapy 352

Original Articles
The Life of Robert Koch, H. J. Corper 353
Considerations on Allergy in Clinical Tuberculosis, Henry Sewall 362
Vesical Neck Obstruction: Its Relief by Transurethral Resection, Harold T. Low...367

Case Reports
Mediastinal Emphysema, Report of a Case Due to Fractured Rib, M. J. Baskin 371
Tularemia in Mesa County, H. S. Day and C. R. Walker 373

Public Health Notes 374
Library Notes, Book Reviews....376
Medical Biography 378
Secretarial Notes and Comment
An Experienced Advertiser Talks on Costs...379
Woman's Auxiliary 381
Medical Societies 381
Obituary 383
News Notes 383
Officers, Committees, Secretaries 383

Wyoming Section
Editorials
High Frequency Treatment of Sinus Infection 384
On to Estes Park and the Colorado Meeting 385
Original Article
Procedures Which Should Be Routine in the Post-Operative Conduct of a Surgical Case, Duval Prey 386
Woman's Auxiliary 388

Hospital Section
Editorials
Hospitalization Through Periodic Payment.Ten
We Are Invited to Estes Park ....Ten
The American Hospital Association Meeting ....Ten
Care of Veterans ....Twenty
Hospital Utilities Tax ....Twenty-two
Original Article
History of Diet in Fever, Harry Gauss ....Twenty-four

NEXT ANNUAL SESSION, ESTES PARK, SEPT. 8, 9 AND 10, 1932

STANLEY HOTEL, Estes Park, Sept. 8, 9, 10

Make Reservations NOW for Your Annual State Meeting



September is a glorious month in this section of the Rocky Mountains; the bright, sunny days and keen, crisp nights are a combination to hold your enthusiasm at a high level.

Then, the incidental program of golf, saddle horses, trout fishing and motoring over the magnificent new scenic highways in Rocky Mountain National Park, will top your outing to perfection.

ROCKY MOUNTAIN LODGES, Inc.
1730 GLENARM PLACE DENVER, COLORADO

FOOD FOR THOUGHT

THE PUBLIC educated to systematic credit in all mercantile business and none for the professional man have the profession carrying outstanding accounts many times greater than the merchant. Due to no credit control the butcher, the baker, and the candle stick maker are paid while the Doctor waits indefinitely.

Only when overhead or personal expenses press him does he look to his accounts receivable, and finds in many cases the account is uncollectible due to neglect. Handling credits and collections is not just a spare time occupation, but is in itself a profession, which requires training, study, diplomacy and hard work. Most Doctors disliking this end of their business.

No Doctor objects to charity, but considers it a part of his duty when knowing the patient to be worthy of such but he does object to patients demanding the best of service and not paying and the Doctor who draws a credit report on a new patient or forces a patient to pay—is practicing sound medicine—What do you think?

DO YOU KNOW?

HOW MANY PATIENTS RETURN TO YOU FOR SERVICE AFTER THEIR ACCOUNT HAS BECOME DELINQUENT?

The American Medical and Dental Association is the oldest and best established credit and collection firm in Colorado.

MEMBERS REPORT THAT THEY RECEIVE AS HIGH AS 8 TO 1 MORE RESULTS FROM US THAN FROM OTHERS WHO HAVE HANDLED THEIR ACCOUNTS

The Doctors who place their accounts with us for collection are entitled to credit ratings at no charge.

It would take another firm 15 years to duplicate our credit rating information on professional credit risks.

Our collection fees are consistent with the results obtained—the best is usually the cheapest—you get just what you pay for regardless of what it is.

WHY TAKE THE CHANCE

of turning your accounts over to just anyone who tells you he is a collector?

THOSE WHO KNOW

when desiring their medical dental, or hospital accounts collected, come to us.

The American Medical & Dental Association, Inc.

700 Central Savings Bank Bldg. Phone TAbor 2331

Denver, Colo.

infections . .
surgery . . .
pregnancy .
impending or actual coma

these conditions in diabetics may require the use of . . . INSULIN

WHEN dietetic treatment alone will not keep a patient well-nourished, sugar-free and at work, Insulin should be employed. It may also be used to advantage when infections, surgery, or pregnancy place an added strain upon the patient.

The administration of Insulin permits the patient to enjoy a wider variety of foods of higher carbohydrate and lower fat value. This, according to Sansum, aids in combatting high blood pressure complications and results in the patient feeling stronger and more mentally alert.

Insulin Squibb is used by more institutions, more physicians and more patients than ever before. This is in harmony with the production of an Insulin that is highly purified, highly stable, and remarkably free from protein reaction-producing substances. The great care taken in the assay of Insulin Squibb makes it of uniform potency and always dependable.



INSULIN SQUIBB

Aboard the.. *Aristocrat*

Burlington Route

Shower bath and barber shop are now standard equipment in the lounge car of *the West's Great Train*





On your next trip East, enjoy the advantages of *Aristocrat* service.

Lv Denver . . . . 4:30 pm
Ar Lincoln . . . . 5:05 am
Ar Omaha . . . . 6:40 am
Ar Chicago . . . . 7:45 pm

Matched Pullmans
Solarium Lounge Car
Radio
Buffet and Soda Fountain
Valet Service
The Aristocrat Shop
Reclining Chair Car
Equipped with Radio . . Seats Free
Shower Bath
Barber Shop

RESERVATIONS . . . . TICKETS . . . . TRAVEL ADVICE

901 Seventeenth Street DENVER Keystone 1123

S. R. DRURY
General Agent

F. W. JOHNSON
Ass't General Agent



PARKE-DAVIS HALIVER OIL

with Viosterol-250 D

Accepted for N.N.R. by Council on Pharmacy and Chemistry of the A.M.A.

Derived from halibut liver oil; standardized to contain 60 times as much Vitamin A as high-grade cod-liver oil testing 500 U. S. P. units per gram, and with its Vitamin D content adjusted to equal that of Viosterol.

1 MINIM EQUALS ONE TEASPOONFUL OF COD-LIVER OIL

Parke-Davis Haliver Oil with Viosterol-250 D is supplied in boxes of twenty-five 3-minim capsules and in 5-cc. and 50-cc. vials, with dropper. The dose is so small that little or no difficulty is experienced in administration. Adults appreciate the convenience of the soft, easily-swallowed 3-minim capsules; and in the case of infants and children the entire daily dose—a few drops—may be given advantageously at one time.

HIGH CONCENTRATION - THERAPEUTIC DEPENDABILITY - MAXIMUM CONVENIENCE



At Last!—

WHOLE WHEAT BREAD

THE WAY THE DOCTOR WANTS IT

VITAMINES
NUTRITION
ROUGHAGE

ALL THE NUTRITION OF THE WHEAT GRAIN RETAINED. NOTHING ADDED—NOTHING TAKEN AWAY.

OTTO'S BAKERY

—WM. OTTO—

611 N. ROYER ST. MAIN 4778 COLORADO SPRINGS

Where a high standard of cleanliness always prevails.

ELI LILLY AND COMPANY

RESEARCH AND PRODUCTION IN THE SERVICE OF MEDICINE



Nasal Decongestants

INHALANT EPHEDRINE COMPOUND
NUMBER 20

INHALANT EPHEDRINE PLAIN
NUMBER 21

LILLY'S EPHEDRINE JELLY

PROMPT ATTENTION GIVEN PROFESSIONAL INQUIRIES

Principal Offices and Laboratories
Indianapolis, U. S. A.



A Group of Distinguished Products of the Lilly Laboratories

For Hypnosis and Sedation

Amytal Tablets

For Nasal Decongestion

Ephedrine ~ *Inhalants, Compound and Plain; Ointment Compound; Jelly (water soluble)*

For Bronchodilatation

Pulvules (*filled capsules*), *Sulphate and Hydrochloride, 3/8 and 3/4 grain.*

For Diabetes Mellitus

Iletin (Insulin, Lilly).

For Effective Antisepsis

Merthiolate ~ ~ *Solution, Tincture, Jelly (water soluble)*

For Preanesthetic Use

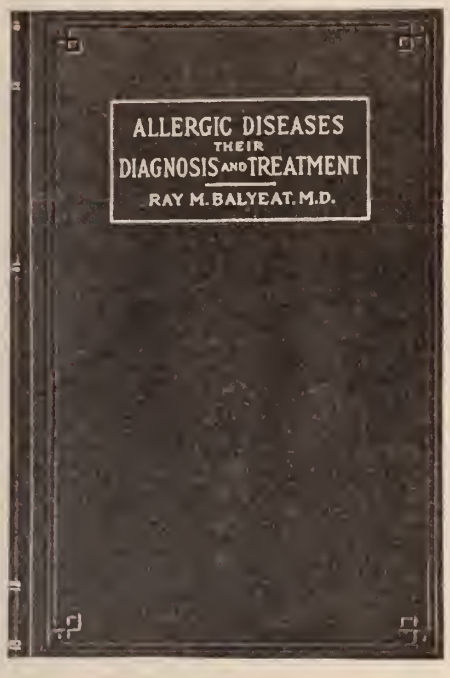
Sodium Amytal ~ *Pulvules (filled capsules) 3 grains.*

For Convulsions ~ *Ampoules.*



PROMPT ATTENTION GIVEN PROFESSIONAL INQUIRIES.

NEW (THIRD) REVISED AND ENLARGED EDITION



Balyeat's Allergic Diseases

THEIR DIAGNOSIS AND TREATMENT

A Practical Treatise on Allergic Diseases—Asthma, Seasonal Hay Fever, Perennial Hay Fever, Migraine, Urticaria, and Certain Forms of Eczema and Chronic Colitis.

By RAY M. BALYEAT, M.A., M.D., F.A.C.P.

Associate Professor of Medicine and Lecturer on Allergic Diseases, University of Oklahoma Medical School; Director of Balyeat Hay Fever and Asthma Clinic, Oklahoma City, Okla.

Three hundred and ninety-five pages, 6x9, illustrated with 87 engravings, line drawings and charts, and four colored plates. Third Revised and Enlarged Edition. Price, cloth binding, $5.00.

Prepared primarily for the practitioner and the student of medicine, the fundamental principles of allergy are fully discussed. Detailed methods for determining the cause of hay fever and asthma, and the practical application of the preventive, palliative and curative measures, are clearly given. It is profusely illustrated, which makes it easily understood by one who is not a specialist.

THE MOST IMPORTANT FEATURES of the new edition are the eight new chapters on disease other than hay fever and asthma, due to allergy, namely, migraine, urticarcia, and certain forms of eczema and colitis — syndromes that have long perplexed the medical profession. In these chapters will be found much practical information concerning their diagnosis and treatment.

About 15 PER CENT of the population of the United States sometime in life suffer from some form of allergy. The methods of diagnosis and treatment of allergic diseases are poorly understood by the average physician.

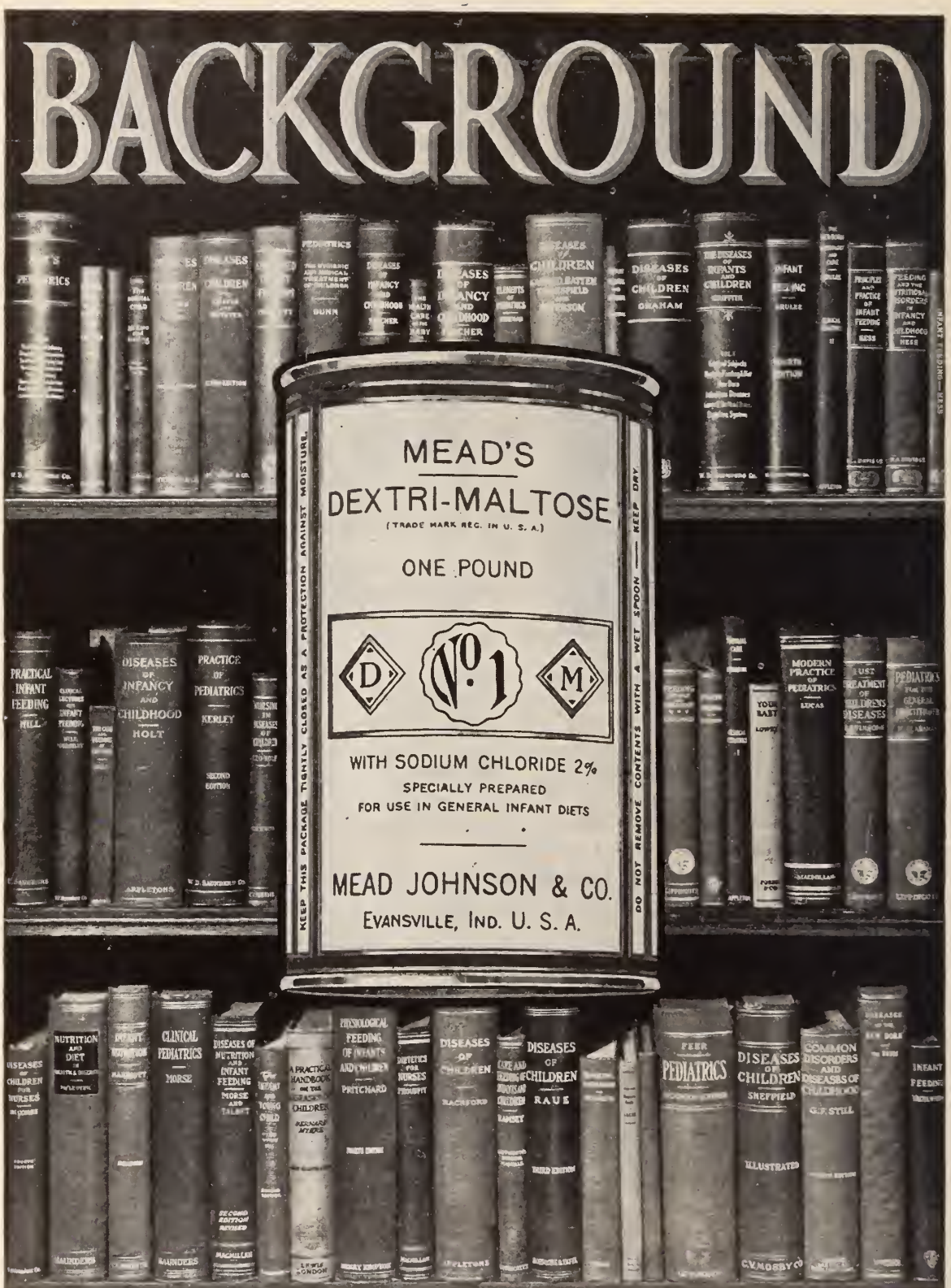
This book offers the physician a guide to the practical methods of their diagnosis and management. The material is arranged primarily to make available to the general practitioner the approved diagnostic and therapeutic procedures dealing with allergic diseases. It is the work of an experienced teacher and a pioneer in the study and treatment of diseases due to allergy.

Tear Off and Mail Coupon

F. A. DAVIS CO., Medical Publishers, Philadelphia, Pa.

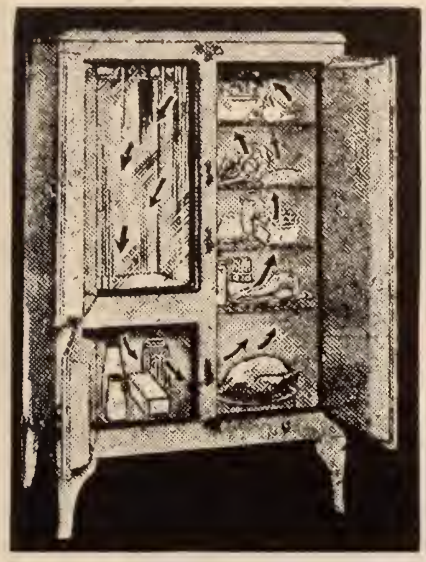
You may send me a copy of the new third edition of Balyeat's ALLERGIC DISEASES. Price $5.00.

Name ..... Address .....



Not a baby food, but part of a flexible system of infant feeding

Mead's Dextri-Maltose owes its wide use and acceptance by physicians to its inherent merit as a carbohydrate well tolerated by infants, and to the fact that it is a part of a flexible system of infant feeding in which the art and science of the physician, rather than the artifices of any manufacturer, predominate



For

Correct Refrigeration

. . . own a modern

ICE Refrigerator

. . . New models keep foods safe and fresh at Lowest Cost

Correct refrigeration . . . preservation of the flavor and wholesomeness of even the most delicate and perishable of foods . . . is found only in an ICE Refrigerator. Refrigeration performs its full duty only when odors and bacteria liberated by foods are carried away. The cold, circulating air in an ICE Refrigerator *does* remove odors and bacteria by depositing them on the surface of the ice block. As the ice melts, they flow down the drain. Many improved features are incorporated in the newest ICE Refrigerator models. Come and see our display . . . or telephone and our display car will come to your home. No obligation.

Liberal Allowance

A Liberal Allowance will be made on your old refrigerator if you buy a new ICE REFRIGERATOR. Have one now on a Small Down Payment. Balance on easy terms. No interest or carrying. Discount for cash.

Denver Ice and Cold Storage Co.

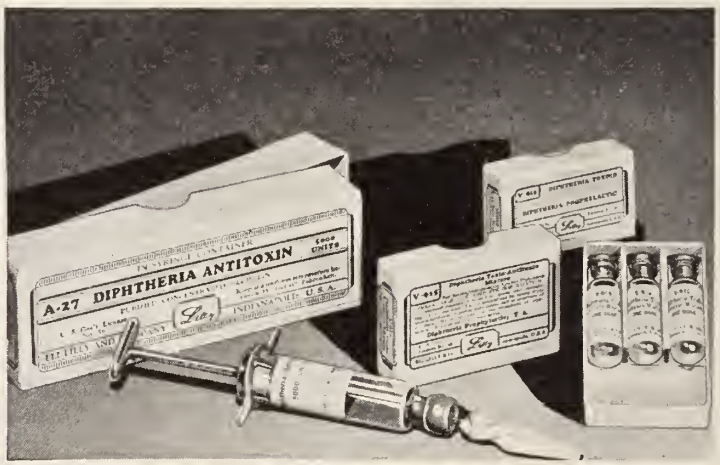
2635 BLAKE ST. PHONE TAbor 1251

"Be Sure It's the DENVER ICE TAbor 1251"

Eli Lilly and Company

FOUNDED 1876

Makers of Medicinal Products for Use Exclusively Under Professional Direction



A half century ago more than fifty percent of the diphtheria cases terminated in death. With Diphtheria Antitoxin, Lilly, for treatment and for passive immunization, and Diphtheria Toxoid, Lilly, and Toxin-Antitoxin Mixture, Lilly, for active immunization, every physician has at hand efficient weapons against the disease.

Prompt Attention Given to Physicians' Inquiries

Address Principal Offices and Laboratories, Indianapolis

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: W. H. Crisp, M.D., *Chairman*, C. F. Kemper, M.D., C. S. Bluemel, M.D.

VOL. 29 NUMBER 9 SEPTEMBER, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

Your Membership Privileges

DID YOU notice page Five in our advertising section of Colorado Medicine's August issue? There was a full page of questions, each worthy of thoughtful deliberation. Their reproduction in these editorial columns is made for the assurance that every doctor reads or re-reads them:

Doctor, can you answer "yes" to all these questions?

Do I read my Colorado Medicine carefully every month?

Am I giving preference to Colorado Medicine advertisers whenever possible?

Do I, whenever opportunity offers, advise the manufacturer of a worthy unadvertised product to tell my colleagues about it through a Colorado Medicine advertisement?

Have I used the Service Department of Colorado Medicine whenever I needed a product not advertised and not carried by my local dealer?

Do I attend every meeting of my County and State Medical Societies, support their officers, and give my best to committee work when so requested?

Do I always pay my Medical Society dues promptly?

Am I making full use of my State Society Library, the finest in this part of the country?

Have I submitted a scientific paper at least yearly to my Society or my Journal?

Do I use all the services of the State Society Executive Office and support the work it does under direction of state committees?

If your answer is "Yes" to every question, Doctor, you are practicing a high type of medicine, your professional purchases are wisely made, you have a good practice, your collections are good, you are advancing scientific medicine and public health and you are a PERFECT MEMBER of the Colorado State Medical Society—but not all of your answers were "yes;" no one can be perfect.

LET'S TRY!

Officers at the American Medical Association headquarters have informed us that Colorado Medicine ranks among the first half dozen state medical journals of this country. We should therefore be proud of it.

The growth of this journal has been phenomenal during the past few years. This has been possible largely through an increase in its quantity of advertising; the quality of the advertisements has always adhered to the same ethical principles governing those of the Journal of the American Medical Association. Our advertisers are therefore deserving of our unqualified loyalty—for which good service and further growth of our journal will follow.

Our service department is prepared to render an indispensable service to our individual physicians and to the organization collectively. Since its inception, medical organization in this state has become progressively more satisfactory and secure. An outstanding example of its efforts in our behalf was the preparation of the Medicolegal Digest, compiled and edited by our Execu-

tive Secretary and distributed to members a few months ago. Each of us would do well to give this volume a prominent place among our books and occasionally to scan its contents and refresh our minds of pertinent facts regarding medical practice. Note particularly the membership privileges, management, purposes, and general activities of the Colorado State Medical Society discussed on pages Sixty-nine and Seventy.

We suggest renewed enthusiasm for the Society and its work, and encourage wholehearted patronage of this journal, the executive offices, and the annual meeting.

Don't Miss the Meeting In Estes Park

SEPTEMBER 8, 9, and 10, Stanley Hotel, Sixty-Second Annual Session!

Look over the program—scientific and social. You can't afford to miss it. Depression or not, medical meetings are well attended. Many of our members are planning to make this a profitable vacation. A more delightful site for the meeting could not have been chosen, particularly for those desiring something unusual in entertainment.

There are reasons other than the attractive program for attendance. Many problems confront the profession at this time which vitally concern its future. Bureaucratic control of medical services, social insurance, mutual benefit organizations which exploit the physician, medical legislation, veteran's relief—all demand our thought and action.

We'll see you there! Make your reservations now.

Cooperation With the University Faculties

A COMMUNICATION is at hand from Dr. T. D. A. Cockerell of the State University at Boulder. Cooperation of this Society is asked in a matter of importance.

It has been brought out in recent discussions at the University that it is the custom of many physicians to give certificates of ill health to students who apply for them in order to be excused for absence, regardless of the actual facts. Dr. Cockerell writes that the results of this practice are deplorable, as follows:

1. A certain feeling of distrust of the medical profession.
2. The encourgement of falsification by the students.
3. The difficulty of dealing with genuine cases of illness, owing to the fact that the faculty cannot tell whether excuses are really valid. The result has been that the Dean has refused to consider excuses for "cuts" from classes altogether, no matter what the cause (he has refused, but is following a rule now established by the faculty).

It is suggested that, although this Society may be unable to control the practice effectively, condemning it publicly may have considerable influence.

We feel that editorial comment in this wise may be more effective than an attempt at official action. May our members be aware of the importance of Dr. Cockerell's suggestions. We cannot afford nor do we desire to incur the distrust of our teaching institutions. It is unfair that we should instill slip-shod habits into susceptible members of the student body. A little reflection upon these facts should minimize these examples of thoughtlessness.

Experiments of a Socialistic Nature

HERE and there throughout the country we learn of experimentation in various types of medical service. Medical groups, societies, clinics, and hospitals are their sponsors in many instances. Most are based upon the monthly fee plan. Those sponsored by county societies entail, however, the free choice of physicians. The results should throw considerable light upon the timely question of methods and distribution of medical service and of the cost of sickness.

One project, sponsored by the Los Angeles County Medical Association, entails the necessary medical service to 7,500 employees of the Metropolitan Water District of Southern California. The physician chosen by the employee is compensated by the regular fee of that community less a courtesy discount of 33 1-3 per cent. The sum

is paid directly from a fund set up by the District.

A comparable plan is one whereby the San Diego County Medical Society has entered into an agreement to provide services to the policemen and firemen. The County Medical Society of Dallas contemplates serving members of its populace whose incomes are below a certain level. Members of this social stratum pay so much monthly to the sickness fund. They are entitled to free choice of a physician. A number of private clinics provide care to large groups of people on a monthly payment plan which varies from $1.00 to $2.00 for each individual.

This program is beset with dangers to our profession, but is a manifestation of a determination to render adequate medical care to all people, particularly those in the small income element. It nevertheless is sowing the seeds of a general socialization of medical care.

❧ ❧ ❧

Cost of Irregular Healers

DATA upon the sums expended on irregular healers have been made available by the Committee on the Costs of Medical Care. Approximately 125 million dollars annually go to 36,150 practitioners; forty-two million to 7,650 osteopaths; sixty-three million to 16,000 chiropractors; ten million to 2,500 naturopaths; ten million to 10,000 Christian Science and new thought healers.

Educational requirements for the above have not been increased, as have those for the M. D. degree, but most of them carry the title of doctor. Undergraduate osteopathic training has increased until it appears likely that this group may eventually blend with the regular profession as has occurred with homeopathy. Chiropractic is too much on the wane to predict such a course for it.

Basic science laws will aid materially in the protection of the public against those ignorant of basic medical knowledge. As they increase, the chaotic condition of medical licensure will become simplified.

A Friend of the Profession

IT IS WITH interest and appreciation that we follow the work of Parke, Davis and Company in its educational campaign through the lay journals. Seldom do we find the medical profession problems so truthfully and unselfishly promulgated. It comes as a gratifying relief in the wake of the blatant commercialism glaring from the printed page and contaminating the air—rarely carrying more than a smattering of scientific facts. The messages are lucid, and the simple delineation of the truth is peculiarly refreshing.

Here is our friend indeed, a loyal firm with our torch in hand, carrying the word which our ethics forbid, and directing the public toward competent medical men. Such pioneering has long been needed but now becomes urgent, when much misinformation is being flaunted before the public.

❧ ❧ ❧

Radio Commends the Physician

For the first time in the history of commercially sponsored radio broadcasting the medical profession is receiving the recognition that is its due. This news has been received from J. Searle Dawley, special press representative.

In his newest series of programs, which he has called "The Country Doctor," Phillips H. Lord, famous as the Seth Parker of the National Broadcasting Company, pays tribute to medical men of all classes and particularly to those who administer to the ills of the millions in the rural communities throughout the country.

The new program was first heard on June 20 at 10 p. m., New York time, over WJZ and the nation-wide NBC "blue network." The programs are fifteen minutes in length and broadcast each Monday, Tuesday and Wednesday night.

Mr. Lord has named his character Dr. Matthews, a kindly, gentle physician who might be found practicing in any of the thousands of small towns which dot the nation from coast to coast. He is skilled in

the practice of his profession and shrewd in his judgment of his neighbors. He is tolerant when he may be, stern when he must be, and in his daily routine plays the roles of brother, counsellor, and friend.

As Mr. Lord pictures him his suit may need pressing, his office may be crying for the touch of an orderly hand, and his bank balance might be better for the assistance of someone to collect his fees for him, but he is always ready, efficient, and always calm. He is solid rock, part scientist, part philosopher, and part priest, and around him, in fair weather and in storm, sweep the waters of the community's life.

"The Country Doctor" is almost a "one man show" for Mr. Lord. He originated the character and has written all the scripts. More than that, he is conducting the rehearsals, directing the broadcasts, and playing the part of the doctor.

He is equipped for his many-sided job by a long and close study of the character he is portraying—a study that began, unconsciously, in his boyhood. Mr. Lord is a product of a rural New England town. It was a country doctor who brought him into the world, and it was a country doctor who guided him past the many ills of childhood and advised him as he was growing to manhood.

He saw the country doctor at work and knew him as a friend. As he grew older he often accompanied the original of the Dr. Matthews of the radio sketches on his visits to his patients. The things he saw and heard were stored up in his memory and it is upon this store that he now draws to give life to the radio character.

Though still a young man—he is not yet thirty—Mr. Lord has enjoyed outstanding success in radio writing and broadcasting. His character of Seth Parker is known to Millions, and his "Sunday Night at Seth Parker's" program is one of the most popular radio features of all time. He also originated the characters of "Uncle Abe and David" and "The Stebbins Boys." The latter still is one of radio's most successful programs though Mr. Lord has disposed of his interests and no longer writes the sketches nor plays in them.

He looks upon "The Country Doctor" as the high point of his radio career and has endeavored, in fashioning the character, to make him distinctive and unique, and a credit to the profession he represents.

❧ ❧ ❧

Oxygen Therapy

THE THERAPEUTIC application of oxygen dates essentially from 1917 and in the past few years has expanded rapidly. Formerly its use was confined mainly to emergency methods. In 1917, Haldane in England found it beneficial in certain cases of war gas poisoning, and Meltzer in this country observed its benefit in cases of pneumonia. Since then knowledge has so stimulated its manufacture and distribution that literature upon its use, and of the apparatus for its application, is readily available.

There is increasing need for treatments involving continuous administration over comparatively long periods of an atmosphere of approximately 50 per cent oxygen. The normal content of the air is 20 to 21 per cent oxygen; less than 30 per cent is not of value therapeutically; more than 70 per cent may be harmful.

We may anticipate an increasing perfection of oxygen chambers and tents and that oxygen therapy will be applied to a constantly widening field of therapy. The number of diseases and physical states in which it is useful or indispensable will undoubtedly increase.

❧ ❧ ❧

A group of young rats were fed a vitamin B-free diet, and a second group were fed a similar diet plus 6 per cent dried brewers' yeast. Both groups were infected per os with an enteritidis organism. Of fifty-three deficient in vitamin B ten, or 19 per cent, survived the infection, whereas of the fifty-one rats given the yeast in addition, thirty-eight rats, or 75 per cent, survived the infection.

THE LIFE OF ROBERT KOCH*

H. J. CORPER, M. D.
DENVER

It is a rare privilege to be given an opportunity to present to you the life of one who has played a most significant role in modern scientific medicine. I had the good fortune to know Robert Koch and enjoyed his presence at a scientific demonstration in Chicago during his visit to his nephew Waldemar Koch, a colleague of mine, in the spring of 1908 when Robert Koch attempted a tour around the world.

Robert Hermann Heinrich Koch was born on December 11, 1843, in Clausthal, Province of Hannover, Germany, in the Harz Mountains. He was the third child in a family of thirteen children. His great grandfather, grandfather, and father were important mining officials in Clausthal. His father, Hermann Koch, a powerful, broad shouldered man of more than middle size, rose from miner to chief clerk of the mining office and superintendent of the Upper Harz Mining and Smelting Department after having served in South France, and having broadened himself by numerous visits to England, Norway, and Italy. He and his wife, Mathilde, born Biewend, were highly intelligent, sociable people of benevolent character. The father was a restless, active, dutiful official of certain judgment and clear expression in word and writing, a zealous (inveterate) smoker; in his spare time he would teach the children the wonders of nature. The mother was small, of slight build, and had a stiff right arm resulting from a fall during youth. In spite of this, she was untiringly active, conducted her household carefully and economically, and planted noble seeds in the minds of the children. The mother died in March, 1871. The father visited Robert as a physician in Wollstein and died in 1877.

Robert inherited the love of nature and unconquerable love of travel from his father, from his mother assiduous industry and judicious disposition. He surprised his father when as a boy of five years of age he was able to read the newspapers. At seven years of age he entered the gymnasium in his native town. He was an industrious student and in his idle moments spent his time studying with the magnifying glass, mosses and lichens which he had accumulated, together with his collection of insects, plants and stones which he found on the hill and dale. He dismembered larger animals, prepared their skeletons, mounted their skins and showed as a whole the growing tendency for the natural sciences. The dead languages fascinated him very little. In his collegiate examination during Easter, 1862, he obtained very good marks in mathematics, natural sciences, history, geography, and English. An intention to study philology never materialized. The thought of becoming a merchant, which brought with it the opportunity of travel, he forsook following a visit to an uncle in Hamburg. His destiny brought him, however, in 1862 to the Hannover University of Göttingen to study mathematics and natural sciences as was predicted by his teachers. He studied botany with Griesebach, trigonometry and stereometry with Ulrich, and physics with Weber. He was an industrious student and after two semesters began to study medicine, not because he wasn't satisfied with the natural sciences, but rather because he had very slight inclinations to a teaching vocation and with the limited means of the father could not hope for an academic course. Since he had to become a bread earner, the profession drew him from the academic fields and Koch's choice was the greater one; he was a born physician. His results as such rested upon his observations in the natural sciences and his ability to think. Even as a youth he searched for the internal workings and

*Presented at the Robert Koch Anniversary Meeting, April 5, 1932, of the Historical Section of the Medical Society of the City and County of Denver and the Denver Sanatorium Association. From the Research Department, National Jewish Hospital, Denver, Colorado. There are so many untrue fiction stories about Koch that his true life story seemed particularly fitting on this occasion, the fiftieth anniversary of the discovery of the tubercle bacillus.

sought to explain why certain events occurred according to certain rules and not according to others. This ability to visualize and to think made for him clearness of observation and presentation and led to his great results.

Among his teachers were the anatomist Henle, the clinician Hasse, and the physiologist Meissner, who, according to his talk before the Academy of Science on July 7, 1909, were responsible for "awakening the sense of scientific investigation." That Henle attracted him was no accident. He pointed to the importance of the views on contagium animatum. To these views Koch proved very congenial. In February, 1865, Koch became an Assistant in the Pathological Museum and studied under Professor Henle's and W. Krause's directions on a prize subject to determine the distribution of the nerves of the uterus and whether they contained ganglions. In disagreement with Frankenhäuser and Kehrer and in an agreement with Kilian he determined as a result of extensive animal experiments that ganglions on the nerves of the uterus were only present outside of the tissues. For this study he obtained the first prize of eighty (thalern) dollars. Humorously he wrote his father, "Even though you did not have too good an impression of my medical knowledge and of the remarkable property of potatoes to fatten slim people, it happens that a blind pigeon will find a kernel of corn, as occurred in my case. Namely, in the distribution of the prizes, I was fortunate in obtaining the first award."

In conclusion to experiments by Meissner and Jolly on the formation of succinic acid in the animal body, Koch undertook in the Physiologic Institute to study the origin of succinic acid in the human body which was reported in the "Zeitschrift für rationelle Medizin, 1865, Band 24," and which he later used for a doctorate dissertation. He demonstrated by digestion experiments in his own body that succinic acid originated in man in the intestines during the oxidation of fats and the reduction of malic acid.

On January 13, 1866, Koch received in Göttingen the "Tentamen rigorosum exima cum laude," and on January 16, 1866, the degree of Doctor was conferred on him. He studied a half year in Berlin, visited clinics and took part in a course of pathologic anatomy under Virchow. His impression of the later course was never discerned from the letters he wrote at that time. Berlin suited him, but the clinics satisfied him less, since the number of listeners in relation to the hospital material were too great, a condition which was so different from that in Göttingen. Koch took the province examination in Hannover and passed this on March 16, 1866. He had little tendency toward being a country physician, as he preferred a military calling, but an attempt to find connection in this line failed. He should have liked to become a ship surgeon to avoid general practice and also to travel, and for this purpose he became affiliated with a hospital in Hamburb. On occasion of a visit to the Hamburg harbor he asked his future wife to accompany him to foreign lands, but she was not favorable. Her refusal prompted him to give up the position in Hamburg within three months and in October, 1866, he accepted an appointment as resident physician in a hospital for mental diseases in Langenhagen near Hannover.

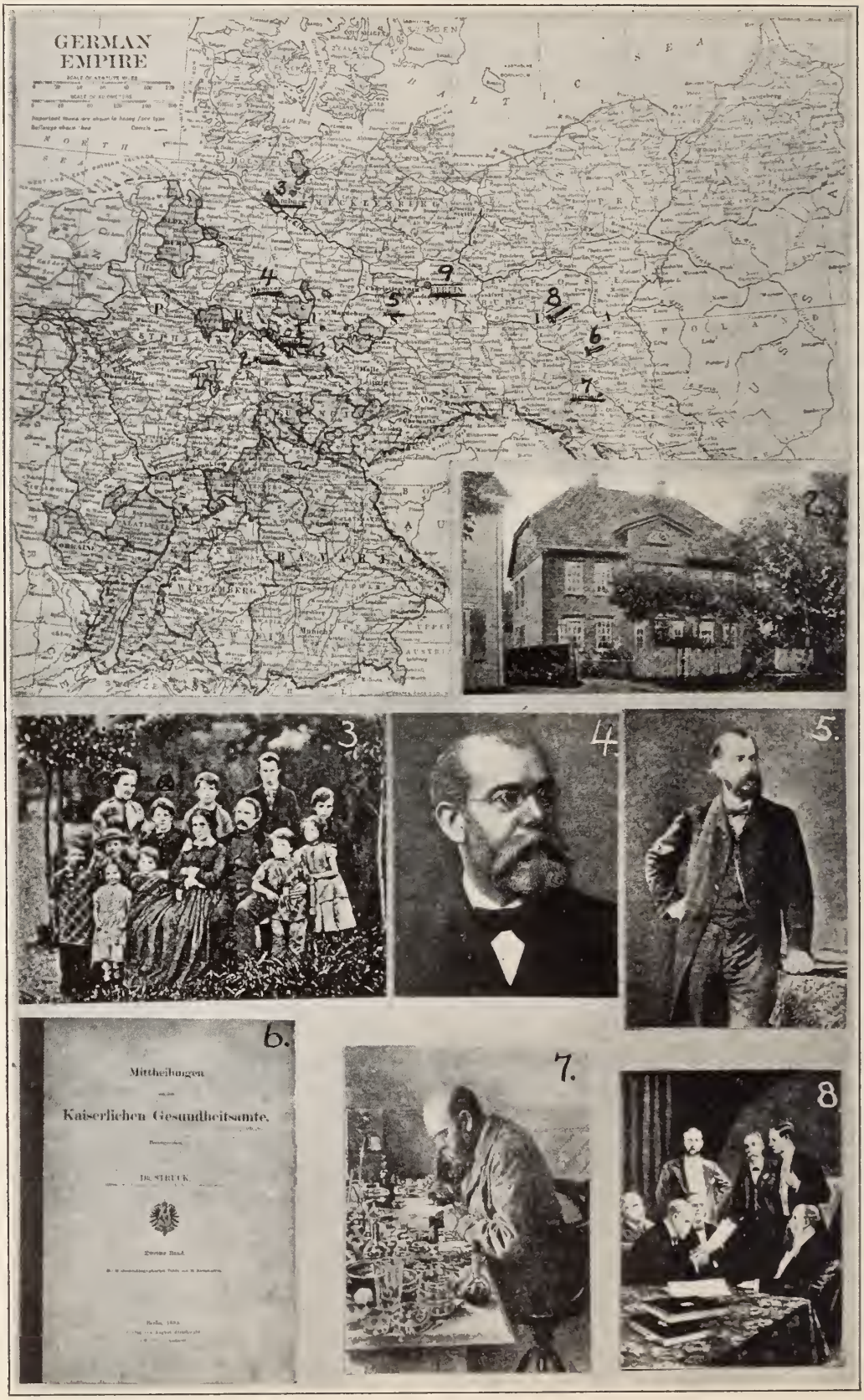
Koch's bride (Emmy Adolfine Josefine) to whom he became engaged during the summer of 1866, was a daughter of the general superintendent Fraatz in Clausthal, a youthful love, and they were married July 16, 1867. She was a faithful partner for twenty-six years and presented him with one daughter, Gertrud.

In Langenhagen the young pair were very happy since Koch, aside from his institutional work, found a profitable practice for which purpose he bought a riding horse and over which he later derived many pleasant memories. To his regret he had to give up his position in Langenhagen after two years on account of an economizing policy and he moved to the Mark (Brandenburg) town of Niemegk in the vicinity of "Zauch Belzig"; his practice here was so unremunerative that during the winter of 1868 to 1869 he had to curtail the expenses of his household to such an extent that he considered leaving Ger-

many, as had two of his brothers who found homes in America. In July, 1869, he moved to Rakwitz in Posen (which is now part of Poland). Here he found a remunerative practice which enabled him to save and engage in scientific work as well as to possess experimental animals. The population was friendly and he found social intercourse pleasant with them. He could house birds, rear bees, and possess many conveniences, as well as take part in playing nine-pins. He even built a large electrical machine which was set up in his parlor and used in his practice.

His residence in Rakwitz was interrupted by the Franko-Prussian war, which he entered in July, 1870, coincident with three of his brothers. He was affiliated with the Eleventh Field Lazarett of the X. Army Corps. In December, 1870, he worked at a typhoid lazarett in Neufchateau and in January, 1871, at a lazarett for the wounded in a suburb of Orleans. The vast medical material and experience pleased him tremendously, yet on the plea of his fellow townsmen of Rakwitz, he requested discharge from the army. In March of this year his mother died of a pulmonary inflammatory condition, but he had the privilege of still seeing her alive while his brothers were denied this because of service connections.

After his return to Rakwitz he again established his practice, and in the winter of 1871 to 1872 he expressed the wish to serve as a civil government officer; he accordingly accepted on March 16, 1872, the position as District Physician of the District Bomst in Wollstein, a town of 4,000 inhabitants. Wollstein was now to be Koch's home for some time. The District Physician was the medical supervisor of the region, but his 900 marks salary required that he carry on additional private practice. The District Physician, however, was the most sought-for physician in the community and was always called in the most difficult cases. Thus Koch was busily engaged from his installation at Wollstein. The one other physician in the neighborhood soon left and the entire community responsibility fell upon Koch, including an Evangelical and a Catholic hospital. He was busy from early morning until late at night. Only after a period of two years was this altered by the fulfilling of a request from Koch that a second physician again be sent to Wollstein. In his first years of residence Koch became interested in certain vocational and industrial diseases which he had already studied while on visits to his father in Clausthal and his brother Hugo in Tarnowitz. The vicinity of Wollstein also invited certain anthropologic studies because of the presence of cairns and prehistoric findings. Mostly, however, he became interested in studying algae and infusoria found in the water of peat bogs. He built himself a small laboratory and his work was enhanced especially by the presentation of a Hartnack microscope as a birthday gift from his wife, which made possible bacteriological work and paved the way for his great opportunity. The Province Posen was noted for its repeated outbreaks of anthrax and as District Physician Koch had the opportunity to study the animals afflicted and found in the spleen and in the blood the organisms (rods) described by Pollender, in 1849, Brauell in 1851, and Davaine in 1863. He was not satisfied with this and wanted to clear up the etiology further than that maintained by Davaine and showed that these rods were not as resistant as maintained, but that they transformed into certain "Dauerformen" (spores) which were more resistant and which could still enter susceptible animals and develop into the bacteria capable of producing disease. Koch performed his inoculation experiments on gray house mice, inoculating into the tail and found that the bacilli rapidly multiply there and traveled into the blood and tissues. He saw them, under the microscope, grow into long leptothrix rods which divided transversely and then developed spores under suitable conditions. In rapidly dried blood, spore formation did not occur. Koch found mice and guinea pigs especially susceptible, rabbits less so, while dogs, sparrows, and frogs were insusceptible. In transmission he found that fresh blood or tissues were not as important as the entrance of spores from


GERMAN
EMPIRE
1
2
3
4
5
6
7
8
9
BERLIN
2.
3.
4.
5.
6.
Mittheilungen
aus dem
Kaiserlichen Gesundheitsamte.
DR. STRUCK.
7.
8

air containing dust or from food in anthrax districts. Before presenting his paper in Cohns' Beiträgen zur Biologie der Pflanzen, May 27, 1876, he requested an interview with Ferdinand Cohn in Breslau and on April 30 gave a demonstration to which Julius Cohnheim was invited. Cohnheim upon returning to his laboratory remarked to his assistants, "Let everything stand and go and see Koch. This man has made an exceptional discovery which because of its simplicity and exactness of method deserves wonder, since Koch is cut off from all scientific affiliations and he has absolutely completed the work. There is nothing more to add. This is the greatest discovery in the field of micro-organisms, and I believe that Koch will further surprise us and put us to shame." Delighted over this reception by Cohn and Cohnheim, Koch traveled to Berlin to show his results to Rudolph Virchow but was given a cold reception which saddened him.

Koch's methods of microscopic and photographic examinations were next used in studying wound infection and in 1878 he published on this subject. It was then that he maintained that the parasitic micro-organisms must be found in all cases of the disease, and they must be found in such num-



ILLUSTRATIONS OF "THE LIFE OF ROBERT KOCH"
(By H. J. Corper)

1. The German Empire. Historic localities in the life of Koch.
   1. Clausthal (Harz Mountains).
   2. Göttingen.
   3. Hamburg.
   4. Hanover (Langenhagen).
   5. Belzig.
   6. Rawitz.
   7. Breslau.
   8. Wollstein.
   9. Berlin.
2. The Koch Home in Clausthal.
3. Robert (x) as a boy with his family.
4. Robert about the time of his residence in Wollstein.
5. Robert about the time of the discovery of the tubercle bacillus.
6. Mitteilungen aus dem Kaiserlichen Gesundheitsamte, Dr. Struck, Director, 1884.
7. Robert in his laboratory about the time of the discovery of tuberculin.
8. Koch (reading address) at the London International Congress for Tuberculosis in 1901.
9. Koch about the time (1905) of receiving the Nobel Prize and many other honors.
10. Koch (x) and Frau Koch (y) visiting with Kitasato (z) and his friends during an attempted trip around the world in 1908.
11. Koch in Japanese costume in 1908.
12. The shrine to Koch in Japan.
13. Koch in 1910, shortly before his decease that year.
14. The Robert Koch Memorial in Berlin.

bers and so widespread that all the symptoms can thus be explained. Finally for every individual wound infection there should be a morphologic, well characterized, microorganism as parasite. He was thus able to elucidate six diseases caused by specific, well characterized microorganisms: (1) septicemia in mice; (2) progressive tissue necrosis (gangrene) of mice; (3) progressive abscess formation in mice; (4) rabbit pyemia; (5) rabbit septicemia, and (6) an erysipelas in rabbits. The most important results of these studies he believed was the demonstration of the specificity of the pathogenic bacteria and their unalterability. In 1878 he obtained a Seibert microscope, from the Zeiss plant in Jena, with homogeneous immersion for use with cedar oil.

Thus far his work had been conducted in his own home, but because of cramped quarters and the greater demand for equipment he began to look about for more laboratory facilities. In the summer of 1879 a medical supervisor position opened in Breslau and it was hoped by Ferdinand Cohn that Koch might obtain an extraordinary professorship. Koch moved to Breslau, but his expectations were not fulfilled. His salary of 900 marks and limited facilities made it impossible to continue there. The position in Wollstein was fortunately held open, and after a few months Koch returned and was again received with open arms, but his residence there was not to last long because in July, 1880, he was called to Berlin as Counselor and ordinary member of the Kaiserlichen Gesundheitsamtes.

It would hardly do to omit a few words about the family life in Wollstein. His home consisted of four rooms in a comfortable neighborhood on "Weisser Berg Strasse"; a waiting room was lacking and the patients would wait in the vestibule. The parlor was divided into two parts by a curtain, one-half being used as a laboratory, and in this there was a microscope with a dark chamber, incubator, a table of glassware for experimental animals, and a photomicrograph apparatus. Frau Emmy Koch was three years younger and an industrious housewife; she kept house, kitchen and cellar in the best of order and was a faithful assistant. She helped him in his practice and took the history of the patients. She assisted him in his scientific work, managed the heliostat in photomicrograph work, fed and groomed the experimental animals and burned the cadavers in the kitchen stove. As the only daughter "Trudchen," born in 1868, grew up, she shared the work in assisting the father. In his recreation hours Koch would be seen in his large garden occupied with his bees and chickens, or walking about town with his wife, child and "dachshund", and smoking his long German pipe. He would permit his daughter, of whom he was exceedingly fond, to play around his writing table and never tired of answering her childish questions, taking part in her play or frightening her as he crawled on the floor imitating a lion or tiger. In Wollstein his neighbors were very fond of him. A short letter to his daughter written in 1876 is elucidating, "Dear Trudchen: It was a great pleasure to me, as mother had written, that you were, until now, well behaved and that she is satisfied with you. No doubt it will remain thus. For your birthday I wish you right good luck. You are now eight years of age and must from now on be a very understanding girl, be industrious in school, help mother in the kitchen, attend to the flowers, feed the animals, assist me with the microscope, polish the glassware, and collect algae. All this you must attend to and each year you will take more work off our hands. Finally Papa and Mamma can sit in the chair and our dear Trudchen will cook and use the microscope and write recipes. Oh! that will be a wonderful time. But now don't stay away too long. The animals search every day in all the corners and 'Julka' groans frequently and when the door softly opens I think, 'Now my girl is approaching and when I look, it is a strange person'. So, I hope you will come soon to your dear Papa".

It wasn't with light heart that Koch and his family could take leave from Wollstein. In 1874, there was called into existence the Kaiserlichen Gesunheitsamt in Berlin which was established in 1876 and Geh. Obermed-

izinalrat Dr. Struck was appointed first Director, not as efficient an organizer as his successor Köhler, but he made up for this deficiency by drawing attention to the Wollstein district physician, occasioned his being called to Berlin and in furthering his work. The Gesundheitsamt was at that time (in 1880) located in the small building at 57 Luisen Strasse next to the Veterinary High School adjoining the Charité Hospital. The rooms were modest, but were marvelous in comparison to the facilities at Wollstein. In addition there was available a large staff of assistants. Koch's early associates there were Georg Gaffky, Friedrich Loeffler, August Gärtner, Bernhard Proskauer, Gustav Wolffhügel, Ferdinand Hüppe, Bernhard Fischer—names that will always be associated with hygiene. Their work and days of industry was presented in the "Mitteilungen aus dem Kaiserlichen Gesundheitsamte". Only two mitteilungen appeared, but in their place was later presented the "Arbeiten aus dem Kaiserlichen Gesundheitsamte".

The methods developed at Wollstein proved a veritable "surface mine" for discovery at the Gesundheitsamte. The first work Koch and his co-workers accomplished at the Gesundheitsamte was concerned with the continuation of his previously published work on pathogenic microorganisms. He described staining methods, preparing of photomicrographs, inoculation of animals, preparation of sterile mediums and sterile implements and especially the introduction of solid mediums, including potato and gelatine. With his co-workers he also studied disinfection.

Those who had an opportunity of knowing Koch intimately knew that of all his studies, the one concerned with tuberculosis was dearest to him and with his genial methods he performed the remarkable feat of solving the etiology within a short period of two years, 1881 to 1882, and presenting his results on March 24, 1882, before the Berlin Physiological Society. The details of this discovery and epoch making meeting are too well known to require reiteration.

Typhoid and diphtheria came under the magic spell of Koch's associates. In the fall of 1883, Asiatic cholera occupied the arena and among the commissions sent to Egypt was that composed of Robert Koch and his assistants Gaffky and B. Fischer and the chemist Treskow. They left Berlin on August 16, and arrived in Alexandria on August 24, where, upon the invitation of Dr. Kartulis, they began work in the Greek Hospital. On September 17, they had demonstrated the characteristic rod in twelve cholera victims and ten post-mortems, grew it in pure cultures but did not succeed in infecting animals. A visit to Cairo, to the Pyramids, and then a second study in Calcutta at the Medical College Hospital where they examined sixteen cholera victims and thirty-two post-mortems finding the same comma-shaped rods as in Egypt. Then followed commissions in 1884 in Berlin to formulate plans for prevention. On May 5, 1884, the Crown Prince presented Koch, for this work, the Crown Order of second-class of black and white stripes. On May 6, 1884, Struck met the commission and advised Koch of an honorarium to him of 100,000 marks. The picture of Koch's work in the Kaiserlichen Gesundheitsamt would not be complete without citing his influence upon the establishing of the Hygienic Institute.

Prior to this there were only two hygiene professors in German Universities, one in München filled by Max V. Pettenkofer and one in Göttingen formulated for C. Flügge in 1881. Koch was made Professor of Hygiene on April 1, 1885, and the Hygienic Institute was opened at 36 Klosterstrasse on the corner of Sieberstrasse. It was a two-story building with roomy halls, teaching rooms, and bacteriological and chemical laboratories.

Koch now in his fortieth year was of middle size with dark hair and a full beard and. on account of his short-sightedness, wore glasses. In his speech he was clear and definite and liked this quality in others. Toward his enemies he was retiring and especially to those that were drawn to him through curiosity. With his co-workers he was considerate and helpful. During his

spare moments he would have a friendly chat over his glass of wine or beer and was not disinclined to a few social events. He enjoyed renewing old friendships and recalling past experiences. He also delighted in visits with his assistants and listened attentively to their demonstrations. The work emanating from the Hygienic Institute was published mainly in the Zeitschrift für Hygiene which was founded by Koch and Flügge.

From 1889 to 1890 he became actively engaged in personal investigations and at times he would work for days behind locked doors and only the evidence of the dead guinea-pigs removed by his Diener Meinhardt brought proof that he was engaged in an important study. Only a few of the trusted knew what was going on.

At the Tenth International Medical Congress at Berlin in 1890 he reported his work on a substance derived from the tubercle bacillus which would heal early phthisis. The story of tuberculin has been retold many times. Koch's name was now again in every mouth and Kaiser William II gave him the large cross of the Red Eagle Order, an honor which no physician had as yet aspired to. He was also honored by his birthplace Clausthal and by Berlin.

On July 1, 1891, Koch retired from the professorship in Hygiene and became an honorary professor in the medical faculty. He was succeeded by Rubner, but would himself have preferred Flügge. By this time there occurred certain changes in his private life. In 1888 his daughter Gertrud married Dr. Eduard Pfuhl, and an estrangement occurred between him and his wife Emmy which resulted in a separation in 1893. In 1890 he had purchased the family home in Clausthal, and to this home Frau Koch retired and lived until her death on December 3, 1913, when it was inherited by the daughter. In August, 1893, Koch was married a second time to a twenty-nine year old Fraulein E. F. Hedwig Freiberg, and the marriage remained childless.

As Hygiene Professor and academic teacher, as well as pathfinder in the field of hygiene, Koch had accomplished a great deal, but he still had uppermost in his mind the love for combating infectious diseases. He saw the erection of the Institute for Infectious Diseases as a group of the so-called triangle at the Charité Hospital. This consisted of a division of laboratories and a division of hospitals. Here he displayed the part of the excellent physician in visiting every patient and in supervising treatment. Tuberculosis and its treatment received first place and there resulted the tuberculin preparations T. A., T. O., and T. R., which were reported on in the Deutschen medizinischen Wochenschrift. In 1892, cholera and anaerobic bacteria interested his assistants. Tetanus bacilli were grown by Kitasato, and Behring produced the antiserums. Studies of the Institute included leprosy, rabies, "rinderpest" (cattle plague), oriental boil, Texas fever, and malaria. He traveled to Italy, Java, and German New-Guinea. On October 19, 1900, the Malaria Commission met again in Berlin. On one occasion of the visit to New-Guinea, Frau Koch who had accompanied her husband, had contracted malaria and returned home.

Koch's studies now became so involved in commissions that they almost lose their individuality. In his first studies in tuberculosis, Koch thought there was only one tubercle bacillus, but later with Mafucci he found that the avian bacillus deviated in many qualities and finally in 1901 at the International Tuberculosis Congress in London, he presented his evidence which led him to the belief that the bovine bacillus is almost practically harmless to man, a discussion which lasted for some time later.

His interest in typhoid fever was exemplified in the bacteriological work of Drigalski and Conradi so well known. On December 11, 1903, Koch celebrated his sixtieth birthday in Bulawayo in Rhodesia, South Africa. His students and friends at that time had the sculptor, John Pfuhl, prepare a marble bust of Koch. Upon his return after a deferred celebration, he pointed out the fact that the field of bacteriology was now in the hands of many and that there would be a great deal of stepping on each other's toes, but he rejoiced in his many

friends and faithful co-workers. On October 1, 1904, he was retired from the government service with an annual pension of 10,000 marks and for his birthday, December 11, 1904, the Kaiser granted him the "Wilhelm Order." In the vestibule of the Institute for Infectious Diseases was placed his marble sculptured bust. From 1891 to 1901 Koch had directed the Institute. During this time he had studied some of the most important communicable diseases and with his co-workers had put their management on a definite foundation. Koch was presented with his work room and his laboratory and was given a permanent assistant for life with annuity. With his retirement, however, Koch did not change his daily routine. He appeared at the Institute early in the morning and the relations with Gaffky were pursued until his end. Gaffky did everything possible to make Koch's surroundings pleasant. The relations were those of father and son, although Gaffky was only six years younger. Koch felt relieved of the burden of executive responsibilities. He still displayed a marked interest in the combat against tuberculosis and was a member of the German Central Committee for Combating Tuberculosis. He took the greatest interest in statistics on the spread of tuberculosis.

It was frequently asked why Koch took no interest in cancer. His answer to this question was, "I will defend myself. There is little to be done for cancer". He, however, did use bacteriological methods for its study, but without avail.

After his retirement, Koch lived six years longer, three of which were spent in foreign lands, especially in studying tropical diseases in Africa. On December 17, 1904, he traveled to German East Africa without his wife, but with Meixner, and studied African recurrent fever. He found the African spirochete to be longer than the European recurrent fever organism and elucidated its transmission. He studied the tsetse disease and described the tsetse fly and followed the course of the trypanosome disease. Two developmental forms—a male and a female —were determined. He also studied Texas fever at that time. He returned to Berlin on October 23, 1905, and honors continued to pour in to him. On December 10, 1905, he received the Nobel Prize in Stockholm. On April 7, 1906, he returned to Africa to study sleeping sickness and his wife accompanied him, but on account of ill health she had to return from Uganda. On November 4, 1907, after an absence of a year and seven months, he returned with valuable information. They had found atoxyl and trypan red to be valuable therapeutically. In the year 1908, plans were made to extend Koch's investigations. These were supported by the Kaiser, numerous states and institutes and by private philanthropists, including Andrew Carnegie; thus was originated the "Robert Koch Stiftung (Foundation)". On October 20, 1908, Koch's dearest friend Friedrich Althoff died. Without this friend's assistance Koch would never have been appointed Professor in the University, nor Director of the Institute of Infections Diseases, nor a Member of the Academy of Science.

Another point worthy of mention is the lack of unity between Emil v. Behring and Koch. Behring became an assistant in the Hygienic Institute in 1889 and in 1891 entered the Institute for Infectious Diseases. Koch had learned that man may be affected at any age period with tuberculosis, while von Behring maintained that the infection occurred predominantly in childhood. Koch again considered milk quite harmless while Behring stressed it in the origin of tuberculosis in man. When Behring patented his bovo-vaccin, Koch could not support this procedure. Althoff's numerous attempts to smooth out the difficulties availed little. Koch was profound in his loves and in his dislikes and was of a real problematic nature. This explains why his friends were so intensely loyal and why he had opposition. Those who had the patience to learn to know him never belonged to his opponents.

Koch had always expressed a wish to travel around the world and on the thirtieth of March, 1908, he and his wife traveled to New York where they arrived on

April 7. On April 11, the German Medical Society held a banquet in his honor and on April 12 he left for Chicago where he visited relatives and from there went through the Grand Canyon and Los Angeles to San Francisco. After fourteen days' visit in Honolulu he traveled to Yokohama. In July he was honored by his pupil Kitasato and the Japanese profession and was introduced to the Mikado. In August he received a telegraphic communication to represent Germany at the International Tuberculosis Congress in Washington. With a heavy heart he gave up his 'round the world tour and returned by way of Canada to the United States. On September 28, 1908, he took part as Honorary President in the International Congress. He returned home to Berlin on October 22, 1908, and his last studies were again concerned with tuberculosis. On April 7, 1910, he presented his current views on the epidemiology of tuberculosis.

Koch's hair at this time was sparse, his beard gray, his head slightly bowed, but his gait was upright and he tolerated bodily and mental stress without fatigue. On April 4, 1910, he still appeared before the Academy of Science and on April 9, 1910, after a heavy day in the Institute for Infectious Diseases he suffered a severe attack of angina pectoris which recurred after fourteen days in milder form. Koch recovered slowly and lost weight. In the middle of May, he visited his daughter, who felt that she was seeing him for the last time. On May 21, 1910, he traveled with his wife and staff physician Möllers to Baden-Baden to enter the Sanatorium of Drs. Frey and Dengler, where he improved daily. On the twenty-seventh of May, to satisfy the wish of his wife, he wanted to join the others at the dinner table and accordingly dressed himself and sat at the balcony door. A sudden cardiac attack terminated in exitus and he was cremated on May 30, 1910. His ashes were interred in a niche covered with a marble plate in the Institute for Infectious Diseases. On May 27, 1916, near the Kaiserin Friedrich House on Luisenplatz in Berlin a monument of Koch, prepared by the sculptor Tuaillon, was unveiled. He had entered the realm of the immortals.

In the "Kladderadatsch" from the pen of Paul Warncke appeared the following:

"Er hat mit seines Geistes Fackel tief
Ins dunkle Todestal hineingeleuchtet.
Aufsprang das Tor, als er sein 'Sesam' rief,
Und Augen wurden hell, die leidbefeuchtet.
Im Leben fand er Tod, im Tode Leben,
Und unermüdlich vorwärts drang sein Streben.

Zu frühe rief ihn ab ein jäh Gebot.
Warum so früh? —
Ihn fürchtete der Tod!"

CONSIDERATIONS ON ALLERGY IN CLINICAL TUBERCULOSIS*

HENRY SEWALL, M.D.
DENVER

In recent years many of the most suggestive and illuminating contributions to the literature of tuberculosis, have had for their theme the relation of allergy to immunity. I am persuaded that not a little of the apparent discord in opinion among investigators is due to an inadequate terminology. All must agree that, from the viewpoint of the animal or human host, immunity from disease is the goal of immunological effort. In presuming to present observations in this field, it is proper that I symbolize briefly some conception of the mechanism of immunity.

It seems plausible that when a living hypersensitive cell meets its antigen, one of two things may happen: (a) The teleologic adjustment of cell-sensitization and antigen-mass may be such that an immune reaction, leading to increased resistance on the part of the cell, may be completed without any waste of surplus energy. This, then, is that desirable manifestation of immunity without allergic disturbance. Such is the ideal oper-

*Read before the National Tuberculosis Association at Colorado Springs, June 7, 1932.

ation of the immune process, involving a mechanism of immunity that postulates long and meticulous preparation in coordinating the antagonistic agents concerned. (b) But in the ordinary reactions between sensitized cell and antigen we see evidence of lack of mechanical efficiency, as indeed is common in most organic reactions. Even in physiological processes Nature is prone to extravagance in the use of material and waste of energy. In immunological reactions we witness a teleological contest between two opposing forces, the tissue cell and the pathogen, and somehow there seems a fitness in a waste of energy with an excess roughly proportioned to the equality between the contending forces and the incompleteness of the mechanism of immunity.

In short, it is not surprising that the immunological struggle should develop allergic energy; the only question in dispute is its teleologic import. There are three alternatives to consider: 1. Is the allergic disturbance indispensable to the accomplishment of the immune reaction for resistance? 2. Is allergy rather, as I have supposed, a factor of the effective immune reaction whose intensity is somewhat inverse to immunity accomplished? For this point of view my laboratory records seem to give experimental evidence. 3. Or is allergic energy merely a sign of a toxic concomitant of the immunologic conflict without any immunological significance whatever? Since we are not prepared to answer definitely any of these questions, it seems wise to seek their meaning by resort to the logical methods which consciously determine our decisions in ordinary life—the analogy of experience.

A generation or so ago fever was considered the condition to combat in the infected sick man. Fever was a disease: here was something tangible to fight. The discovery of effective antipyretics would seem to have put into our hands the long sought vehicle of a cure-all. But these failed. Then the idea gradually evolved that fever was an important accessory in a patient's struggle for recovery, probably improving the vital environment for antitoxic tissue metabolism. But even so, when too intense or too long continued, fever could be disastrous to the organism in which it developed.

The practical clinician, accordingly, came to regard fever as a conservative reaction against infection and as desirably of proportionate intensity thereto. He was apprehensive of fever as the bearer of bad news, and welcomed its disappearance when collateral signs of cure simultaneously developed; but his courage despaired when fever disappeared and infective poisoning continued. Is not fever an expression or even a component of allergy, and does not its concept offer a true analogy for the varied phases of allergy?

As we hasten the reactions within a test tube by heat, so we can hardly doubt that a biochemical turmoil (allergy) may, per se, establish an environment in which immunologic reactions may be greatly facilitated; otherwise how can we comprehend the ameliorating effects on chronic infections that so often follow the shock of non-specific protein intra-venous therapy?

Unfortunately, the mere setting free of a store of vital energy (allergy) does not carry with it a guarantee of how it shall be disposed of—whether in defense of the host, or to strengthen aggression by the invader. Our interpretation would divine that the disposition of the freed energy would be determined by the respective preliminary training of the two contestants, cell and pathogen, in the warfare.

With the same facts before them, thinkers in pathology may hold different opinions as to the significance of allergy among the phenomena of infectious disease. A definite conception of the subject is of practical importance to the clinical student of tuberculosis-pathogenesis. We are all familiar with the searching investigations of A. K. Krause[10] and his co-workers, who see in allergy the executive arm of the mechanism of immunity, operating specifically through adjusted, militant inflammation.

An opposite interpretation of similar phenomena is made by A. R. Rich[16, 17], who sees in allergy only an incidental concomitant of the events leading to immunity but having no essential connection therewith. He notes

that a high degree of acquired immunity can exist independent of allergy and, per contra, a high degree of allergy when immunity is greatly depressed; that allergic reaction may result in death of tissue; that it is questionable if it contributes to resistance.

Pottenger[14] writes: "Without allergy there would probably be no healing of clinical tuberculosis." Checking his clinical observations by x-ray examinations of the lungs, Rappaport[15] concludes, "Immunity as a function of allergy is decreased . . . on the other hand excessive allergy may be expression of great immunity." Max Pinner[13] writes: "It is allergy that is double-faced, not immunity . . . Fibrosis seems to occur only in allergic soil." Calmette[4] declares: "Immunity may be present without allergy, but it is true that the only evidence of bacillary infections is the presence of allergy. Because of this it is desirable to have patients allergic." He therefore takes measures in his cases of supposed successful BCG vaccination to induce allergy by occasional excessive inoculations performed at definite intervals. I will close this congeries of views upon the vital intent of allergy by a reference to that most suggestive contribution of Besredka's[2] description of his study of anthrax in the guinea pig.

According to this investigator, a normal guinea pig inoculated with virulent anthrax bacilli in any dosage and by any channel except through the skin manifests no reaction whatever. But when the inoculation is made through the skin, or better, into it, inflammatory reaction is speedy, violent, and likely to be fatal. But serial intra-cutaneous inoculations with attenuated bacilli of graded virulence were tolerated, and immunity to anthrax disease was thereby secured. The skin is the only organ which directly reacts to the virus, and through which anthrax disease may be produced or immunity from it secured.

"Immunization or non-immunization of the animal runs parallel with the sensitivity or non-sensitivity toward the virus."

Let us now turn to the more practical consideration as to how, through allergy, existing infection with tuberculosis modifies the response of an individual to various stimuli. Signs are not wanting that tuberculin has a specific therapeutic value which is not likely to be successfully elicited except when its administration is strictly controlled by radiography and clinical reaction. Krämer[9] gave a digest of his results from pre-war tuberculin treatments as tested by the drastic strain of war experience upon patients enrolled in the German army. He concluded that anatomical and functional cure of tuberculosis could be secured through its use and that in such a case allergy waned and was replaced by anergy or insusceptibility to tuberculin. He thinks that this is the ideal to strive for in the tuberculin treatment. Soldiers who as "former patients had been rendered allergic did not relapse, while a very large number who remained allergic did relapse in the course of time."

It is not surprising to find reports of the major significance of vitamins in the diet of the tuberculous. Thus, R. Bieling[3] reports that tuberculous guinea pigs soon succumb when fed on a diet deficient in vitamin C, which tends to produce scurvy. By keen deduction from experimental data De Savitsch quite recently was led to inquire whether vitamin D, the "sunlight" vitamin opposed to rickets, did not play a conspicuous part in the immunology of tuberculosis. Through happy cooperation of the staff in biochemistry and pathology of the University of Colorado School of Medicine, he is able to present before another section at this meeting suggestive experimental findings confirmatory of his idea.

The physician in charge of tuberculous patients is frequently confronted with the dilemma as to the effect upon them of intercurrent infections and as to the effect of foreign protein allergies upon the main disease. Zinsser[18] with his co-workers, has intimately studied the phenomena of bacterial allergy, which must be read in the original for full appreciation. They show the intricacies of the skin tests which exhibit reactions only part of which are due to bacterial allergy. "The so-called bacterial allergies are dependent upon a mechanism which differs materially from that determin-

ing true protein anaphylaxis . . . Bacterial allergies are of great importance as they develop rapidly and render the infected organism very vulnerable to otherwise harmless products of bacterial growth. The functional cell-alteration caused by the bacterial antigen seems to have a very definite relationship to the phenomena of susceptibility and resistance." "If we believe that allergy and resistance are parallel and causally related, then these substances upon which allergy depends may possess protective functions different from and based upon a different mechanism from those possessed by antibodies."

The easy and comforting explanation of tuberculosis immunity through production of antibodies, commonly relied upon by able experimenters of the first decade of this century has been generally abandoned by recent workers. Thus, Lewis and Loomis[11] say, "Antibodies against tubercle bacilli are formed in relatively small amounts and with difficulty by any species; in guinea pigs—scarcely more than occasionally demonstrated." Yet when these workers injected into tuberculous guinea pigs the washed red corpuscles of sheep, "there was formed in them much more (up to 20 times as much) antisheep-amboceptor than in normal pigs." "It is evident that in tuberculosis that character which is designated as 'allergic irritability' is high with respect to an antigen that is not related to the tubercle bacilli." Such a laboratory finding, if it holds for the human being and with respects to foreign antigens in general, must be of prime clinical importance.

On the other hand, allergy per se is claimed to radically modify in otherwise normal persons susceptibility to infection. Thus, Balyeat[1] states, "Allergic patients develop general resistance to infectious disease which is far above the normal. . . . Allergic patients who develop symptoms during the first or second decades seldom develop tuberculosis."

Kahn[7] writes "that allergic vasomotor rhinitis and bronchial asthma may greatly impede improvement in pulmonary tuberculosis. Important measures may be suggested as a result of skin-antigen tests in which wool and feathers are especially apt to be incriminated. When the antigen is removed, or even the patient desensitized, improvement of the lungs follows. Paroxysmal or chronic digestive disturbance may have similar origin. Cough, possibly, is often allergic."

Pagel[12] found "that there is a fundamental difference between tuberculin-hypersensitiveness and serum-hypersensitiveness. Serum anaphylaxis either could not be elicited or it was greatly diminished in tuberculous guinea pigs."

E. Guth[6] states, "Tuberculosis has a definite action upon the entire vegetative nervous system and the term 'vegetative allergy' is justified . . . This is determinable with progression of the disease through changes of reactivity, especially in the behavior of the sympathetic toward the para-sympathetic system." Guth founded his conclusions on the changes in pulse and blood pressure following injections of adrenalin.

It is stated that in tuberculosis, annoying symptoms, as of cough, may be due to underlying hypersensitiveness which is exposed only in the course of acute infection[3].

Most students of clinical tuberculosis must at times have been impressed with its close functional relations with the general hormonic equilibrium. The work of Guth above illustrates some important relations to adrenalin. But malfunctioning of the thyroid gland is especially apt to complicate the tuberculosis complex and I am constrained to suspect that it may undermine the ability of the body to establish solid immunity. Thus, Kallos[8] reports on the relations of thyroxin and tuberculin allergy. It was found that several patients with active pulmonary tuberculosis reacted very slightly or not at all to tuberculin. Analysis of these cases showed in each: marked anemia, a high sedimentation rate, decreased alkali reserve, and decreased metabolic rate. All these conditions were interpreted as due to hypofunction of the thyroid gland. Thyroid medication was followed by return to normal of the hematologic and metabolic departures, and tuberculin tests then showed

strong reactions, according to the clinical conditions. The thyroid medication had no ill effect and it favorably influenced so-called toxic symptoms, such as headache, menstrual disorders, hyperacidity and hypermotility of the stomach, and spasms in the gastro-intestinal tract. Nevertheless, one may suspect the propriety of trusting patients to carry on thyroid medication except under observation.

I will close with reference to a few clinical observations based upon personal experience. Respiratory allergies are apt to proclaim their own nature and will receive here no attention; but food allergies seem to be more insidious. I am impressed with the conception that what may be called "potential alimentary hypersensitiveness" is exceedingly common and, in fact, may not be recognized through a lifetime for the reason that, under ordinary conditions of diet, desensitization is repeated sufficiently often to keep its edge dulled. But suppose certain food proteins are excluded from the diet for some months; such sensitization as the intestines may previously have acquired for these proteins is likely to develop into a hypersensitiveness which, when confronted with the effective antigen in sufficient quantity, responds with an attack of anaphylaxis—whose throes my childhood knew as "cholera morbus." Nothing is better certified than the allergic nature of such attacks in their more serious aspects, but in their minor phases they are dismissed as mere attacks of indigestion.

It would be inexpedient to detail here illustrative case histories—suffice it to lay down certain rules for prophylaxis and diagnosis. It is a sane rule to suspect, in any patient, hypersensitiveness to an article of food which, having been freely enjoyed, has been omitted completely from the diet for months in succession. The case history of a patient is likely to elicit information of recurring digestive attacks at the beginning, say, of the watermelon season.

People transplanted from the seaboard to midcontinent are apt to overindulge in shellfish when they return at long intervals to the coast. The unpleasant digestive disturbances likely to follow may be obviated by partaking very lightly of the suspected aliment every second day for a while, and thus secure desensitization. Indiscretion can result seriously.

This allergic point of view should not be neglected in the diagnosis of abdominal symptoms suggestive of acute appendicitis. Operation after subsidence of such an attack may show a normal appearing appendix. In a complex case, recognized as allergic in origin, the operation later in the attack disclosed a juicy appendix without pus, but swollen with edema. We must remember that inflammation is the characteristic local allergic response to reinfection and probably also to protein anaphylaxis. The vermiform appendix, as a locus minoris resistentiae, may carry too far what Nature meant only as a cautionary rebuke! Indeed, one cannot but suspect that alimentary anaphylaxis may be concerned as the exciting agent in many of those sudden deaths from heart failure, attributed to "acute indigestion."

All this is said because these adventitious allergies are of peculiar importance when they are manifested in the persons of those who are struggling with pulmonary tuberculosis.

REFERENCES

[1]Balyeat, R. M.: Amer. Jl. Med. Sci., 1928, 176, 332.

[2]Besredka, A.: Local Immunization, trans. by H. Plotz, 1927.

[3]Bieling, R.: Zeitschr. f. Hyg., 1924, CI, 442.

[4]Calmette, A.: Ann. de Med., 1929, XXV, 293. (Ref. in Am. Rev. Tuberc. 1930, XXII, p. 109).

[5]Colmes, A., and Rackemann, F. M.: J. A. M. A., 1930, 95, p. 192.

[6]Guth, E.: Beitr. z. Klin. d. Tuberk., 1924, LX, 39.

[7]Kahn, I. S.: Amer. Rev. Tuberc., 1924, IX, 39.

[8]Kallos, P.: Klin. Wochensch. 1931, X, 1404.

[9]Krämer, C.: Beitr. z. Klin. d. Tuberk. 1922, 49, 239. (Ref. in Amer. Rev. Tuberc. VI, 239).

[10]Krause, A. K.: Amer. Rev. Tuberc., 1924, IX, 83.

[11]Lewis, P. A., and Loomis, D.: J. Exp. Med. 1924, XL, 503.

[12]Pagel, W.: Klin. Wochensch., 1929, 8, 742.

[13]Pinner, M.: Amer. Rev. Tuberc., 1931, XXIII, 175.

[14]Pottenger, F. M.: Amer. Rev. Tuberc., 1928, XVIII, 580.: Ibid 1927, XVI, 245.

[15]Rappaport, I.: Ibid. 1928, XVIII, 590.

[16]Rich, A. R.: Arch. Int. Med., 1929, XLIII, 691.

[17]Rich, A. R., and McCordock, H. A.: Bull. Johns Hopkins Hosp., 1929, X, IV, 273.

[18]Zinsser, H., and Tamiya, T.: Jl. Exp. Med., 1926, 44, 753.

VESICAL NECK OBSTRUCTION: ITS RELIEF BY TRANSURETHRAL RESECTION

HAROLD T. LOW, M.D.
PUEBLO

The last decade has witnessed an increasing number of reviews, lectures, essays, and monographs on the subject of vesical neck obstruction. Especially is this true of the urological literature. Those who are most particularly interested in this subject are thoroughly familiar with it in all its aspects. However, as this discussion is intended for those in general practice and the other specialties, it might not be amiss to cover the ground somewhat in detail.

The historical data of the various pathological conditions causing bladder neck obstruction are extremely interesting to the urologist. However, such a review would necessitate a paper of its own, and, as it is only of academic interest to the general practitioner, only such mention as is deemed necessary for clearness will be made.

There have been many classifications of bladder neck obstructions, but it is believed the simplest will be the least confusing to those who do not have daily contact with these cases. The following classification would seem complete and easily understood:

1. The acute inflammatory prostate.
2. The chronic inflammatory prostate.
   a. Sclerosis and atrophy causing various types of collar contractures of the production of posterior lip median bar.
3. Hyperplastic enlargement of the prostate sometimes called the adenomatous prostate or benign hypertrophy.
4. The hyperplastic enlargement of Albarran's group of glands without hypertrophy elsewhere is often classified under the bar formations.
5. The neoplastic, carcinomatous or sarcomatous growth within the prostate.
6. Prostatic or vesical neck calculi.
7. Benign papillomatous growths on the vesical margin acting as a ball valve.
8. Congenital valves of the posterior urethra.

With the exception of the first type, the acute inflammatory prostate, the effect is that of a chronic bladder neck obstruction and the resultant pathology is both local and systemic, regardless of the type of obstruction.

Interference with urinary drainage by any intravesical obstruction first causes a bladder muscle hypertrophy, resulting from the increased effort of the bladder to empty itself. This is usually attended with greater irritability so that it tends to empty itself more frequently. This is usually the first symptom, increased frequency, and for a varying length of time by reason of this muscle hypertrophy, the bladder is able to still empty completely. This is designated as the stage of compensation. As the obstruction increases, a point is finally reached at which the bladder is unable to empty itself completely. This follows from the fact that the muscle fibers contract most efficiently when moderately extended, and as the bladder becomes smaller, its expulsive force begins to diminish. Consequently, a certain amount of urine remains in the bladder. This is known as residual urine. As a rule, the residual urine continues to become greater in amount; and at any time, an acute retention may occur as a result of infection, long auto or train rides, or exposure to cold or alcoholic excess. The bladder under this slowly increasing amount of residual urine, becomes distended and a second phase is entered into—that of decompensation. The muscle walls become thinned out and overstretched, and its power of expulsion is greatly reduced.

During this process of hypertrophy and later thinning of the bladder wall, trabeculation with the formation of cellules and frequently diverticula takes place. If infection supervenes, a severe grade of cystitis results and very often calculi are formed within the bladder cavity. Besides these local effects, as a result of the continued back pressure, grave systemic disturbance supervenes as manifested by upper urinary tract infection, causing lowered renal function due to destructive renal pathology. Many a high

blood pressure can be traced to this cause alone. Chronic urinary sepsis is a factor in myocardial degeneration. An advanced case of urinary obstruction will inevitably result in a chronic uremia.

The thorough understanding of this systemic disturbance and its relief by appropriate measures has done much to reduce the mortality rate in the surgery of these obstructive conditions. The only emergency existing is a careful, gradual withdrawal of an acute retention and of the recognition of the fact that some type of vesical neck obstruction exists.

The symptomatology is alike in all of the various classes of obstructions. First, an increasing urinary frequency, noticed at night more often in the beginning. Soon follows an increased effort to start the stream with decreased size and projection. If infection takes place, there will be all the attendant symptoms of a cystitis, increased frequency, burning and terminal tenesmus, with sometimes marked hematuria. Frequently there is an incontinence, but it is only a paradoxical incontinence, the bladder being distended and the incontinence being an overflow affair.

Bearing in mind that the first symptom of bladder neck obstruction is nocturnal frequency and that this is not a normal physiological process, the attention of the careful practitioner should be at once directed to the vesical neck. Physiological polyuria produced by late increase of the fluid intake is transitory in character only. Continued frequency of one to two times nightly is significant, and if this history can be elicited, despite the patient's interpretation, it should be looked upon with suspicion and further methods instituted for diagnosis.

While a marvelous reduction in the mortality rate has resulted with careful preoperative preparation by reducing the blood waste products, cleaning up infection, standardizing the cardio-vascular and renal systems, much yet is to be hoped for, and the earlier recognition of the presence of vesical neck obstruction, with its relief before grave pathology ensues, will result in a much greater lowering of the mortality rate. Many surgeons are prone, even with the knowledge that an obstruction exists, to advise waiting until the symptoms demand operation. In all kindness and sincerity, in the light of present day advancement, this fact can only be designated as procrastination, productive of grave pathology to the patient and the loss of a great opportunity to the surgeon.

Advanced cases of lateral lobe, or a combination of lateral and median lobe hyperplastic enlargement, present very little difficulty in diagnosis. The symptoms of frequency, dysuria, difficulty and hesitancy of the urinary flow, together with the finding of residual urine, lengthening of the urethra as demonstrated by the length of catheter necessary to withdraw the urine, plus a typical prostatic enlargement found upon rectal palpation, cinches the diagnosis. This is true of advanced carcinoma when the posterior lobe is hard and indurated. Beginning hypertrophy of any of the lobes during the state of compensation is often undiagnosed. Enlargement of the median lobe alone cannot be felt per rectum. Median bars, collar contractures, Albarran's, and subtrigonal gland enlargement can never be diagnosed by rectal palpation.

Many practitioners are opposed to the routine uretha-cystoscopic investigation of suspected prostatic enlargements, but the knowledge so gained overshadows any temporary inconvenience experienced by the patient. It is only by this means that a comprehensive diagnosis can be arrived at in the above mentioned types. Even in a frank, advanced, benign hypertrophy such frequent findings as coexisting bladder calculi, papilloma, or diverticula warrant its use.

In the median bars, collar contractures, and small median lobes, visualization of the bladder neck gives exact data as to size, shape, and amount of protrusion of the obstruction; and after such a study, a method of surgical removal can be instituted which will do the patient the least harm and give him the most effective relief of his obstruction. A very pertinent fact that should always be foremost in the consideration of any vesical neck obstruction is that it is

not the size of the obstruction that determines the amount of residual urine, the extent and character of local bladder complication, or the degree of upper urinary tract pathology and its effects on the general body economy, but the degree of encroachment at the vesical outlet.

The open operation, either suprapubic or perineal, is the one of choice in the cases of prostatic hypertrophy with large intravesical and intraurethral projections. In earlier cases of true hypertrophy, median lobe hypertrophy, hypertrophy of subcervical glands (lobe of Albarran), hypertrophy consisting of fibrosis of collar type, sclerosis due to atrophy as well as carcinomatous bar obstructions can best be attacked by transurethral methods.

The evolution of transurethral instruments and technic is a chapter of its own, beginning with the Bottini instrument and method of 1874. Many types of cold punches, cauterizing punches, and other types of instruments have been in use. Their successes and failures have been typical of most new methods of therapy, either surgical or medical. That there was merit in this method of approach is testified to by the fact that today there are many satisfactory instruments for the transurethral removal of certain bladder neck obstructions. Most of the present day instruments are modifications of H. H. Young's cold punch, and most have some type of cauterizing blade, knife, or electrode to control hemorrhage. In the hands of the respective inventors, these instruments are gratifying in the results obtained. The selection of any instrument depends upon the training and personal preference of the individual operator.

In the hands of the writer, the Collings radiotherm knife electrode through a McCarthy panendoscope has proved to be very successful in the past. The ordinary high frequency current which has an oscillation rate of 100,000 per minute has been stepped up to 1,400,000 and higher oscillations per minute, and the effect of this current is cutting with a very superficial cauterization rather than the deep coagulation effect of the old current. This prevents secondary sloughing and hemorrhage. The primary hemorrhage is only slight as the small vessels are sealed by the cutting current. With the perfection of the McCarthy loop instead of the Collings knife, using the same stepped-up current, almost any amount of tissue that is desired may be removed from the vesical neck. However, much depends upon the skill and perseverance of the operator as to the amount of tissue removed and the functional results obtained.

Most of the original credit for the popularizing of this transurethral operation belongs to Caulk, of St. Louis. His perseverance and almost dogmatic stand taken as to the results obtained, even in the face of severe, and, at times, bitter, criticism, have given courage and incentive to others, until today it is a well recognized surgical procedure. Even yet, his attacking the moderately enlarged hypertrophic prostate cystoscopically meets disapproval, but there is an ever-increasing number who are using this method in hypertrophies of moderate size, with excellent results, thus warranting his statement that "most of the vicious criticism to this type of surgery of the larger hypertrophic growths, have had no basic defense in practical experience and have based their conclusions, not without prejudice, entirely on a historical background."

The detail of technic of these various transurethral operations concerns the urologist more than any other group; yet, the general man should know that the former orthodox measures reeking with complications and dangers can, in many instances, be replaced by radiotherm resection of the bladder neck, giving a maximum result with a minimum sacrifice. Cooperation on his part by the early recognition of the beginning obstructions and frequent consultation with one sufficiently qualified to advise him as to the exact conditions present, will go a long way toward making life a more enjoyable affair to some 33 per cent of the male sex who have passed the halfway mark. All bars and contractures can be removed successfully by this method. Early hypertrophies should be given the benefit of this less

mutilating operation. Carcinomatous encroachment at the vesical outlet can be removed without added danger of metastasis and together with deep x-ray therapy for control of the disabling and terrific sciatic pain, some measure of relief can be afforded these often hopeless derelicts. In a certain small percentage of cases, it is impossible to get the patient in condition for a suprapubic operation, regardless of the length of time drainage is maintained. Considerable relief can be given these old men by removing a V-shaped wedge at the posterior margin of the bladder neck by radiotherm resection without an almost certain fatality.

The same preoperative preparation is instituted as in open operation. The immediate post-operative period is only a week or ten days in duration. Thus, from an economic standpoint alone, the patient has much to gain.

Notwithstanding the mood of hard skepticism with which some of our urological colleagues receive any mention of transurethral resection of the hypertrophied obstructing prostate, it has assumed a definite position in urologic surgery. This statement is not based on a mere conjectural estimate in abstract, but follows a firm conviction as the result of clinical experience of some magnitude as well as the work of other urologists. Those who are strongest in their doubts complacently state that end results cannot, as yet, be reported. This in a measure is admittedly true. However, I might retaliate and say that the end results and morbidity following open perineal or suprapubic prostatectomy in any clinic with a definite follow-up system, are not without embarrassing moments. Good anatomical results are often not followed by as good functional results. Any prostatectomist frequently sees post-operative morbidity not entirely to his liking. Such complications as continued nocturia and pyuria, failure of sinuses to close, or a definite residual urine, may persist. Return of obstructing prostatic nodules are being reported frequently by some observers. In the past, the chief objection has been that the entire prostate is not removed. Neither is it with the open method. The removal of a median lobe even in the presence of large lateral lobes has given such surprising functional relief that we are beginning to wonder just how much the lateral lobes cause obstruction and residual urine.

The future of the transurethral prostatic resection has many possibilities; it is a safe procedure. Hemorrhage can be absolutely controlled by the introduction of a special rubber bag attached to a ureteral catheter. Functional results obtained by the removal of the obstructing portion only are often astounding. From a phophylactic standpoint the procedure stands pre-eminently alone, and it is prophesied that the advanced obstructions with grave systemic pathology will become more and more a thing of the past—especially when the general practitioner recognizes the earlier obstructions and refers them for transurethral resection.

Thirty-eight cases have been subjected to this type of surgery and are classified as follows:

NO. CASES	TYPE	RESULTS SUCH AS RELIEF OF FREQUENCY, DIFFICULTY, AND RESIDUAL URINE		
		Poor	Good	Excellent
10	Median Bar	0	0	10
8	Adenocarcinoma	1	2	7
6	Median Lobe Alone	0	0	6
10	Median and Lateral Lobes	3	3	4
4	Recurrence of Carcinoma after previous suprapubic prostatectomy	0	1	3

The three cases giving poor results were operated the second time with good results in all. This procedure obviates the necessity of a suprapubic cystostomy in prostatic carcinoma.

Cocomalt Accepted

Cocomalt and the claims made for it in the advertising, are accepted by the American Medical Association Food Committee. Also Cocomalt is the only food drink fortified with Vitamin D under license by the Wisconsin Alumni Research Foundation. Each ounce of Cocomalt contains not less than 30 Steenbock (300 ADMA) units of Sunshine Vitamin D.

CASE REPORTS

MEDIASTINAL EMPHYSEMA

Report of a Case Due to Fractured Rib

M. J. BASKIN, M.D.
DENVER

The accumulation of air in the mediastinum in sufficient amounts to cause symptoms is not common after injuries to the chest. At times, however, such an accumulation may produce alarming symptoms and even death. Mediastinal emphysema is usually traumatic but has followed operations on the neck. It has occurred after artificial pneumothorax and occasionally after childbirth. The symptoms are due to pressure and the complaint is of suffocation. It should not be confused with the very common subcutaneous emphysema so frequently seen in rib fractures. This is not serious, and the air is absorbed in about seven days.

Mediastinal emphysema is caused by a valvular perforation of the lung. With each inspiration air is pumped into the thorax. The valvular action of the lips of the wound prevents the escape of air during expiration. The air is trapped in the pleural cavity and more is forced in with each respiratory effort. Of particular importance is cough which closed the glottis and forces more air in.

Ballon and Francis[1], investigating the consequences of variations in mediastinal pressure, find that the air may travel great distances and may take several courses:

1. It may spread beneath the fascia and travel beneath the costal pleura and intrathoracic fascia.

2. In the most severe type, air travels to the hilum of the lung and from there into the mediastinum and even over the entire body.

3. The air dissects a passage along the trachea to the floor of the mouth extending under the base of the tongue which becomes raised.

4. There is a special tendency for the air to follow along the sheaths which surround the blood vessels. Thus the axillary and femoral vessels may be compressed.

5. It is not uncommon for air to extend retroperitoneally and even along the renal vessels and kidneys.

The effects of mediastinal emphysema are:

1. Stagnation of blood in lungs.
2. Usually drop in blood pressure.
3. Pulmonary edema.
4. Pericardial effusion.
5. Diminished action of the heart.
6. Edema of the tracheo-bronchial mucous membrane.
7. Pulmonary emphysema.

Lillienthal[2] in Thoracic Surgery, cites a case reported by Frederick W. Zimmer at a meeting of the Rochester, New York, Medical Society. This was a case of generalized emphysema following fracture of several ribs in left lower thorax in a young man. Emphysema developed first on the chest, then over the entire body, extending to the thighs, shoulder and neck, so that breathing became impossible. Thoracotomy

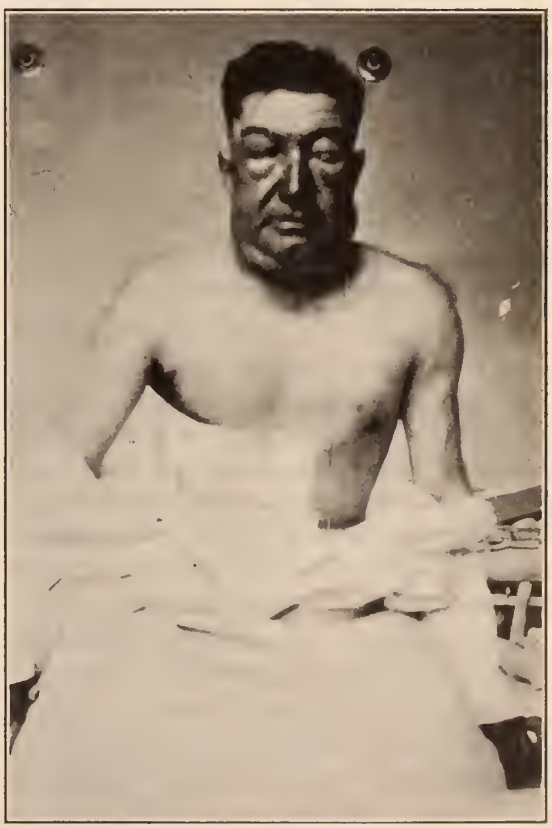


Fig. 1. Showing generalized emphysema. Photograph taken immediately after thoracotomy.

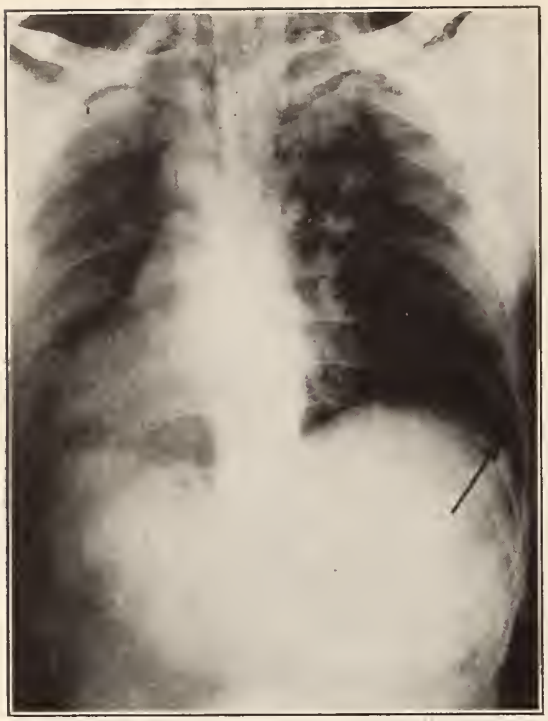


Fig. 2. X-ray on admission showing fracture of eighth on right side, as indicated by arrow.

was done with recovery. Air under tension escaped and there was a rapid reduction of the emphysema. He had seen it fatal in two other cases. Lilienthal states, "The method appears to me to be a very valuable one in properly selected cases."

Goodliffe[3] reported case with fracture of the seventh rib. The patient recovered after pleural puncture with trocar.

R. A. Money[4] reported a case in a boy, aged four years, run over by an auto. He was emphysematous from the scalp to the thigh. He was too ill to have x-rays taken. A needle was inserted into the chest and skin incisions were made below each clavicle. The recovery was dramatic. The emphysema cleared in two weeks. X-ray of chest one week later was negative.

A similar case with normal x-ray findings was reported by John A. C. Macewan[5].

Fenichel[6], July 4, 1931, reported a case due to intracardiac puncture with injection of adrenalin in a woman who had collapsed. In fourteen hours the entire surface of the body above the hips was emphysematous. A trocar was inserted into the pectoral subcutaneous tissues and left there for three days. The condition became worse and a needle was inserted into the pleural cavity. The patient died. He also reports the same condition developing in a man, aged 49, as a result of an attempt to aspirate fluid from the right chest. He coughed immediately after the puncture and cutaneous emphysema followed. In twenty-four hours it had spread to the right side of the chest and neck. The patient died. The autopsy revealed the fact that the needle had perforated the lung.

The treatment of mediastinal emphysema should consist in prompt relief of air tension. This is best accomplished by thoracotomy. Various other methods of releasing the air have been tried. Thoracotomy, however, seems to be the method of choice and is the most logical one. The air is released from the space where the most damage can be done.

Tiegel's[7] method which was used in case of five fractured ribs and ruptured lung with extreme emphysema of head and trunk was effective. A 4 cm. incision was made down to the trachea in the episternal notch. Continuous suction by means of a glass bell over the wound was instituted for five days.

Lateral incisions over the clavicle were made in two cases seen by Gatellier & Barberry[8] in the last war. This method did not permit satisfactory evacuation of the air and both patients died. In a third case, a median incision was made over the base of the neck with separation of pre- and peritracheal tissues. This patient recovered. None of these methods has given quite the prompt, dramatic results of thoracotomy, and this method should be tried first.

Case Report

J. L., cowboy, was admitted to Mercy Hospital at 7 a. m., February 5, 1929, with the following history: The evening before at 7 p. m. he had slipped on a rug and struck the right side of the lower chest against the edge of a trunk. He felt a sharp pain in the right side and "stitch" in the side on breathing and coughing, but paid no particular attention to it until about 10 p. m. when he noticed he was "swelling up". At 2 a. m. he was seen by a physician and given a "hypo."

His side was not strapped. He continued to swell until 7 a. m. when he was first seen.

His past and family history were of no importance. His complaint was of gradually increasing "swelling" and shortness of breath and pain in the right lower in axillary line.

Examination showed an individual whose general features it was impossible to determine. He was very cyanotic, dyspneic, and unable to take deep breath without pain. There was a generalized emphysema extending from the top of the head through the neck and chest to the knees (Fig. 1). The neck was very much enlarged. The scrotum was tense and distended (eight inches in diameter). The heart was rapid but not displaced. Percussion did not reveal much due to extreme emphysema. X-ray (Fig. 2) showed fracture of the eighth rib on the right side. The whole picture was mottled due to air in the tissues. The chest was strapped and the patient put to bed.

The emphysema, however, continued to increase until at 11 a. m. It was almost impossible for him to breathe. He was gradually choking to death and his condition became desperate. Under local anesthesia, thoracotomy in the seventh intercostal space was done. Air under tension escaped. The lung was found slightly collapsed and a small amount of blood was evacuated. There was an almost immediate change in his condition. Within two or three minutes the cyanosis and dyspnea had disappeared and the patient was feeling good. Lateral incisions were made through the skin and fascia to allow subcutaneous air to escape. The chest was strapped with window for dressings. He made an uneventful recovery, all the emphysema disappearing within ten days (Fig. 3).



Fig. 3. Taken after ten days. All emphysema has disappeared.

REFERENCES

[1]Ballon, H. C. & Francis, B. E.: Consequences of Variation in Mediastinal Emphysema; Mediastinal and Subcutaneous Emphysema. Arch. Surg. 19, 1627-1659. Dec. (pt. 2) '29.

[2]Lilienthal: Thoracic Surgery, Vol. I.

[3]Goodliffe, R. V.: Spreading Emphysema After Fracture of Rib. Brit. M. J. 1:153, Jan 26, 1929.

[4]Money, R. H.: Extreme Emphysema Involving Greater Part of Body. M. J. Australia. 2:440-441. Sept. 28, 1929.

[5]Macewen, J. A. C.: Extreme Emphysema Involving Greater Part of Body: Report of Two Cases. Brit. M. J. 2:892-893. Nov. 17, 1928.

[6]Fenichel, Nathan M.: Tension Pneumothorax with Subcutaneous Emphysema. J. A. M. A. 97; No. 1—July 4, 1931.

[7]Tiegel: Quoted by Lilienthal: Thoracic Surg. Vol. I.

[8]Gatellier & Barbary: Un cas d'emphyseme mediastinal aign. Bull. et mem. Soc. de chir. de Paris 43:509, 1917.

TULAREMIA IN MESA COUNTY

H. S. DAY, M.D. and C. R. WALKER*
GRAND JUNCTION

Since Francis and Mayne[1] discovered the transmission of tularemia by Chrysops discalis, the disease has had increasing attention and has become highly important from the standpoint of public health. At first thought to be limited in its distribution, it has been found in many foreign countries and in almost every state of the Union, and likewise their appears to be many different methods of transmission. Geiger and Meyer[2] have shown transmission to be by rabbits, flies, ticks, and contact with other animals apparently healthy.

The appearance of tularemia and its

*Associate Professor of Biology, Western State College of Colorado.

transmission by a tick in Mesa County becomes an important public health question because of the sheep and cattle industries of the region. The first proved case has been that of Mr. M., a farmer living northwest of Mack, Colo. On a Friday he found a tick partially embedded in the skin near the inguinal glands of the pubic region and removed it by application of turpentine and the use of a knife. Saturday morning there was illness enough to prevent work in the field. By noon the patient was having chills and running a high temperature and by night was delirious. The case was at first thought to be tick fever and a week after the first appearance of illness a blood test was made and pronounced negative for tick fever and tularemia. Since the recovery of the patient was not satisfactory, another blood sample was sent two weeks after the discovery of the tick. R. R. Parker, Ph.D., of the Rocky Mountain Spotted Fever Laboratories at Hamilton, Mont., to whom the sample was sent, wrote, "The blood sample * * * received yesterday, gave a positive test for tularemia. Bacterium tularense was agglutinated in dilution of 1:1280." During the two weeks the patient was delirious much of the time and the fever remained high. The left inguinal gland became greatly swollen and sore, and an ulcer appeared at the site of the tick bit. Other lymph glands of the body remained normal except for slight soreness of the glands of the throat on the left side.

Geiger and Meyer[2] report all cases of tularemia in their findings were of a glandular and ulcerative type. The patient has almost fully recovered except for swelling and soreness of the inguinal glands of the left side and for general weakness.

The activities of Mr. M. were checked carefully for possibilities of infection other than from the tick, but there seems to be no doubt that his infection came from that source. Parker, Brooks, and Marsh[3] report a positive test for tularemia from ticks, and Parker and Spencer[4] find tularemia is capable of congenital inheritance through its eggs to the next generation. Parker and Dade[5] report its transmission in sheep by the tick, and Parker, Philip, and Davis[6] report tularemia in the sage hen and a tick, Haemaphysalis cinnabarina, found on it; and Green[7] reports it from the wood tick, Dermacento variabilis, in less than 0.1 per cent during the summer of 1930. The State Department of Health of New York has issued warning to the public to avoid the wood tick by wearing high top shoes and disinfection of tick bites.

Wild rabbits collected by Game Warden John Hart of Grand Junction and examined by Veterinarian A. P. Drew were reported to be infected with tularemia and a warning was issued against their use, but the finding of the tick as a vector calls for special measures in the prevention of and caring for tick bites in this locality.

REFERENCES

[1]Francis, Edward, and Mayne, Bruce: Experimental Transmission by Flies of the Species, Chrysops Discalis. U. S. Pub. Health Rep., 36, No. 30, p. 1738, 1921.

[2]Geiger, J. C., and Meyer, K. F.: Tularemia in Nevada, Calif., and West. Med., 31:38, 1929.

[3]Parker, R. R.; Brooks, C. S., and Marsh, H.: Occurrence of Bacterium Tularense in the Wood Tick, Dermacentor Occidentalis, in California. Pub. Health Rep., 4:1299. 1929.

[4]Parker, R. R., and Spencer, R. R.: Hereditary Transmission of Tularemia by Wood Tick Dermacentor Andersonii Stiles. Pub. Health Rep., 41: 1403. 1926.

[5]Parker, R. R., and Dade, J.: Tularemia. J. Am. Vet. Med. Assoc., 75:152. 1929.

[6]Parker, R. R.; Philip, C. B., and Davis, G. E.: Tularemia Occurence in the Sage Hen, Controcercus Urophasianus. Pub. Health Rep., 47:479. 1932.

[7]Green, R. G.: Occurrence of Bacterium Tularense in Eastern Wood Tick, Dermacentor Variabilis. Am. Journ. Hygiene. 14:600. 1931.

PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Neonatal Problems

"In the year 1928 there were reported 83,086 deaths of children under one month of age in the birth registration area. It is important to note in this connection that while the total infant mortality rate steadily declined from 1916 to 1928 from 101 to 68, the neonatal rate fell only from 47 to 37. This difference is mute evidence that the concerted efforts of more than a decade have made but slight, if any, impress on the prob-

lem of neonatal deaths in comparison with the marked effect on the total infant mortality rate. It is highly probable that the causative factors of stillbirths and neonatal deaths are the same; therefore, the indications for the reduction of neonatal mortality are the more strict application of measures for the conservation of intrauterine life and the exercise of greater postpartum care by physicians and midwives in the examination, handling, and treatment of the newborn."—Taliaferro Clark, Assistant Surgeon General, U. S. Public Health Service.

Official and Voluntary Agency Relationships

In discussing cooperation between official and voluntary agencies Dr. W. F. Walker, formerly of the American Public Health Association staff, and now with the Commonwealth Fund, emphasized in his address before the National Tuberculosis Association at Colorado Springs in June the following five points:

1. The necessity of a complete understanding of the entire community program for the protection of the public health.
2. The need for leadership.
3. The need for trained personnel.
4. The desirability of having a community viewpoint rather than an individual agency viewpoint.
5. The need for a background of experience in playing together in community effort.

Dr. Walker emphasized the fact that the Health Officer is the logical leader in public health activities in his community, but efficient leadership in voluntary agencies is also important. Trained personnel is exceedingly important as also is staff education on the job.

Pasteurization

Recent studies at the Ohio Agricultural Experiment Station indicate new facts in regard to pasteurized milk. Comparable animals particularly sensitive to nutritive deficiencies were fed under precisely similar environmental conditions with milks from a constant source of supply. The milk furnished to one of the groups was pasteurized. The assertion that pasteurizing destroys some of the calcifying properties of milk was not substantiated. There were no differences in growth. The Ohio investigators therefore assert that, until further evidence to the contrary is available, no alarm need be felt over the nutritive value of present pasteurized milk supplies.

Role of Emotions in Tuberculosis

The human organism responds as a whole to its internal and external environment, according to Professor Mary B. Eyre, Claremont, California, in a paper delivered before the National Tuberculosis Association. Because man is a human being his functions include not only his feelings, but also his brain. The individual who experiences emotion is ready to act. Professor Cannon has shown that the body is prepared for activity at the same time that the individual is under emotional stress. If the discharge of this energy should not take place, then the preparatory processes become disturbers and disrupters of the organism.

For the tuberculous patient this disturbance is especially severe, because he cannot work it off or shift his interest to another scene. Hence, in tuberculosis, emotion devastates the organism to a greater degree than with a well and mobile individual. Tuberculosis is a disease in which emotional disturbances are inevitably brought about in family and business relationships, both of which are strained at this time. Segregation usually emphasizes these factors. The patient has leisure time for brooding, thus causing undue distortion of his problems. To tell him "not to worry" and to "control his emotions" far from helping, usually increases his tension without showing him how to release it.

Fear is the predominating emotion. The characteristic optimism generally attributed to the tuberculous patient is in reality a defense mechanism compensatory to an underlying dread of non-recovery, which he resolutely refuses to admit to himself or to others. Relief lies through re-education. The individual must first be helped to face his

difficulties and to identify the feeling habits in himself. He must be shown how to substitute new feeling habits, which will lead to better adjustment, how to rely upon himself, and become emotionally grown up and how to find adequate constructive outlets for his emotional energy.

Tomato Juice as a Health Factor

Dr. Walter H. Eddy of Columbia University has prepared an article upon the inherent qualities of tomato juice. The summary of his findings is as follows:

1. That tomatoes and tomato juice are rich in vitamine A, B and C.

2. That tomato juice is widely available the year around at a much more economical cost than other fruit and vegetable products containing some or all of the vitamins found in tomato juice.

3. That the heat effect upon the vitamins in various bottling and canning processes does not normally affect vitamin content in a serious degree.

4. That tomatoes and tomato juice are the richest of all vegetables in the natural health acids, excellent in correcting acid condition.

5. That tomatoes are a gentle natural stimulant for the kidneys, helping to eliminate poisons therefrom.

6. That tomatoes in their convenient juice form may legitimately be considered by the physician for use in infant feeding, growth promotion, tooth preservation, improvement of reproductive powers, increase of lactation and increase of resistance to bacterial infection.

7. That tomatoes and tomato juice are now prescribed for diabetes and Bright's Disease, and are indicated for use in treatment of a wide range of other diseases such as scurvy, opthalmia, certain abscesses at the base of the tongue, certain inflammations and pus formations in the ears and sinuses, certain lung, skin and bladder infections, and possibly for pellagra and beriberi.

8. That tomatoes and tomato juice are valuable on reducing menus.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

EDITOR: J. J. WARING, M.D.

Fielding Hudson Garrison, Litt.D.

It will be of interest to the medical men in Colorado to learn that Yale University this June conferred the honorary degree of Doctor of Letters upon Colonel Fielding Hudson Garrison. In presenting Colonel Garrison to President Angell, Professor Phelps spoke as follows:

Fielding Hudson Garrison, Litt.D.

Professor Phelps: Librarian of the Institute of the History of Medicine at Johns Hopkins. Dr. Garrison belongs to that noble company from Sir Thomas Browne to Harvey Cushing who have combined the science of medicine with the art of literature. Lieut. Col. of the Medical Corps in the U. S. Army, author of many scientific and biographical works, Dr. Garrison holds a unique position in America. His introduction to the History of Medicine is the foremost reference book in English. In all phases of medical and biological history he is a master. While editing the Surgeon General's Catalogue and the Index Medicus he wrote the most accurate and readable Life of Josiah Willard Gibbs, and in 1915 a Memoir of John Shaw Billings. Many specialists think him mainly as the author of the History of Anatomic Illustration Before Vesalius, but his friends know him as an excellent musician, and a competent authority on the history of music and the history of Spanish poetry. As a linguist, he is familiar with nearly all modern European languages, including Russian. His versatility is as remarkable as his accuracy. He is a rewarding mine of information. As a librarian, he distributes books wisely, for he has written many of them and read all the rest. He is a cheerful man; happy in himself, and the cause of happiness in others.

President Angell: Most eminent of American scholars in a difficult field, where your extraordinary literary gifts have been wedded to profound scientific knowledge and unflagging industry, Yale University confers upon you the degree of Doctor of Letters, admitting you to all its rights and privileges.

BOOK REVIEWS

Treatment in General Practice. By Harry Beckman, M.D., Professor of Pharmacology, Marquette University. Philadelphia and London: W. B. Saunders Company. 1930. 899 pages.

Dr. Beckman has written this book and presented it to the profession with the premise that the teaching and practice of therapeutics has been overshadowed in the zeal for teaching the methods of diagnosis. Writing in a delightful and easy style, he has carefully considered the treatment of the infections, the infestations, the diseases of allergy and metabolism, the diseases of the digestive and respiratory systems, and of the cardio-vascular-renal system. He gives the treatment of the diseases of the blood-forming organs and of

the common diseases of the nervous system. Sections are allotted to the deficiency diseases and to disturbances of the thyroid gland. The treatment of genito-urinary infections, including the venereal group, is carefully presented and there is a discussion of the care of the common skin diseases. The treatment of acute poisoning and of drug addiction is given, and a section is assigned to the care of burns.

An unexpected contribution is made in the section on the care of the emergencies of the obstetric state. A section on miscellaneous treatments includes a group of diseases which offer especial therapeutic problems. The book is well indexed and its information is quickly available.

The author's literary style is splendid, and the arrangement of his material is excellent. This book is unique and may well be added to the library of every physician.

THAD P. SEARS.

Surgical Pathology of the Skin, Fascia, Muscles, Tendons, Blood and Lymph Vessels. By Arthur E. Hertzler, M.D., Surgeon to the Agnes Hertzler Memorial Hospital, Halsted, Kansas. Professor of Surgery, University of Kansas. 260 Illustrations. Philadelphia, Montreal, and London: J. B. Lippincott Company.

This volume is one of a series of monographs on surgical pathology by Dr. Hertzler. I understand that several others are in process of preparation.

The various individual diseases are discussed from the standpoint of pathogenesis, pathology, and histology. The book is very readable and the style is delightful. The text is supplemented by a large number of excellent illustrations, while the references given at the end of each chapter show the sources, other than the author's wide experience, from which the information given has been obtained.

This very practical and concise work contains a wealth of information.

G. P. LINGENFELTER.

The Human Voice—its Care and Development. By Leon Felderman, M.D., New York: Henry Holt and Company. 294 pages. Price $2.50.

Because of the universal interest in all forms of music and the large number of teachers giving and students taking vocal lessons, the author is of the opinion there is need for a concise treatise upon the human voice, stripped of any unnecessary technical language, presenting to both master and pupil, such information as will make possible a clearer understanding of voice production, care of the larynx, throat, lungs, and resonant chambers of the head. The volume is offered as an auxiliary to vocal instruction.

The first chapters are given over to the sound mechanism in lower animals, the phenomenon of speech, and anatomy of the human ear and larynx. Falsetto voice is discussed. There follows a description of the common diseases of the larynx and pharynx. The sinuses of the head are described with a detail of symptoms pointing to disease of each sinus. Physiology of the respiratory system is presented and a page of normal vital capacity tables. Chapters are seen giving information on the common cold and swimming, both shown to be factors in the production of chronic ear, nose, and throat diseases. Vaso-motor rhinitis is covered briefly as are the tonsils in their relation to the human voice. Alcohol, tobacco, and narcotics are described relative to their effect upon the upper respiratory passages. Fatigue and fear are both shown to be factors in an impaired production of the singing voice.

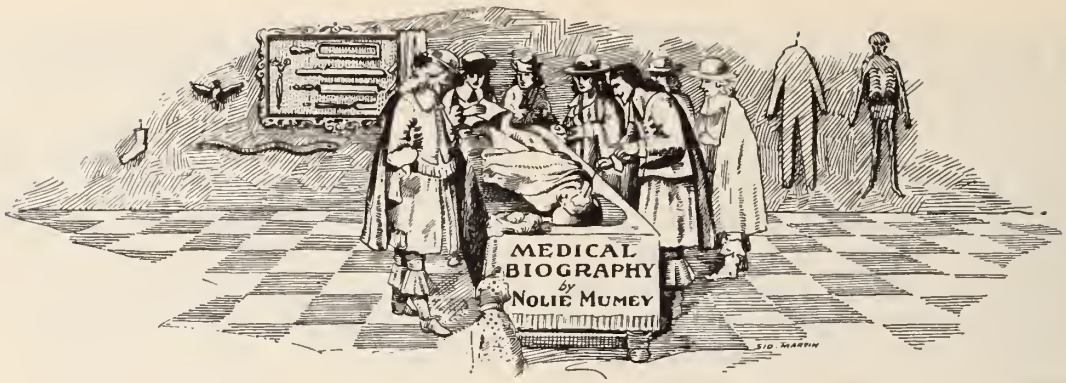
Treatment is entirely omitted. The author holds this to be a problem for the well equipped medical specialist.

For the purpose intended, this book has a definite value. It can be read by teacher and pupil with profit to both. Particularly gratifying to the reviewer is the fact the volume stresses examination of the head and throat of the young adult where disease or anomaly, or both, are thought to be present. Only by early advice and scientific corrective measures, especially where nasal ventilation and drainage is impaired, can the medical profession discharge its obligation to the serious vocal student.

HARRY L. WHITAKER.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1931. Cloth. Price, $1.00. Pp. 100. Chicago: American Medical Association.

This volume contains the collected reports of the action of the Council on Pharmacy and Chemistry on all products which have been found unacceptable or which have been omitted from New and Nonofficial Remedies during the past year. It contains also the special reports authorized by the Council during the year and preliminary reports on articles which show promise but which are not yet ready for admission to New and Nonofficial Remedies nor suitable for general use by the medical profession. Among the reports on products found unacceptable are those on Thymophysin, a preparation of posterior pituitary and thymus, advocated as a safe and reliable means of accelerating delivery and marketed under false claims as to its essential action, as to its strength, and as to its safety for mother and child; on Bismuthoidal, claimed to be colloidal bismuth, and marketed with unwarranted claims of value in the treatment of syphilis intravenously; on Frenly Enema Cream, a complex, unscientific mixture, marketed under a therapeutically suggestive name with unwarranted claims of therapeutic value in a host of conditions; on Hayner's Normaline, an unoriginal preparation of formaldehyde and zinc chloride marketed under a non-informing name without a quantitative statement of composition on the label or in the advertising and with unwarranted and misleading claims; on Pernocton, a barbituric acid product marketed under a therapeutically suggestive name and with unacceptable recommendations for intravenous use; on Solution Normet, an unscientific mixture of citrates, marketed with unwarranted claims; on Alqua Water, Calso Water, and Alka Water, irrational, proprietary "alkalizing" mixtures marketed with unwarranted and misleading claims. The preliminary reports on Nucleotide K 96, a preparation of pentose nucleotides which has shown promise in the treatment of leukopenia, and on Carbarsone, p-carbaminophenyl arsonic acid, proposed for use in amebiasis but needing further confirmatory evidence of value, are both timely and interesting. Perhaps the most noteworthy are the special reports, The Intravenous Use of Barbital Compounds and The Average Optimum Dosage of Cod Liver Oil. The former gives the Council's considered verdict on the dangers and limitations of the use of barbitals intravenously and the latter gives the result arrived at from a questionnaire sent to leading pediatricians.



SILAS WEIR MITCHELL

(Continued from August)

Dr. Mitchell's practical turn of mind enabled him to utilize his extensive medical knowledge to restore the health and to raise the mental efficiency of his patients. Dr. W. W. Keen said, "I often called him a 'yeasty' man. His mind was ever fermenting, speculating, alert, and overflowing with ideas."

S. Weir Mitchell was possessed with an unusual gift of expression; his literary range extended from beautiful lyrics on the one hand to historical novels and strictly scientific articles on the other. He combined his knowledge of medicine and his methods of satisfying intellectual curiosity with deep human sympathy. He was familiar with many aspects of life, ranging from the high intellectual to the low abnormal type.

At the age of fifty, Dr. Mitchell had achieved world-wide fame as a medical man, and after that he became one of the foremost writers of his day, being well launched on a literary career at the age of fifty-six. Few men have become leaders in two diverse fields of endeavor such as medicine and literature. It is indeed extraordinary that any man should achieve such distinction. This fact is an interesting testimony to his unusual versatility. By means of his humor and keen psychological insight, he was able not only to control the normal type, but also to successfully handle even the most abnormal. A case in point was his experience with a patient whom he had confined to a lunatic asylum. The insane man escaped, came to Dr. Mitchell's office, and threatened him with a revolver. Catching him off guard he seized the weapon from his hand and threw him to the floor. The lunatic pleaded for his life and crawled to the door, whereupon Dr. Mitchell kicked him into the street.

At another time he detained a violent lunatic by suggesting that they kill imaginary cock-roaches with a silver fork. They crawled under the bed and around the room for two or three hours. Dr. Mitchell was very tired when aid finally arrived.

A good example of his resourcefulness was demonstrated when a large rattlesnake escaped from a box in his office. The serpent climbed up the back of his chair and over his shoulder while he was reading. The light of the lamp caused the snake to throw its head back and forth; when it finally touched the hot bulb it angrily turned its head toward the doctor's face. Seeing the snake, Dr. Mitchell cautiously reached for a heavy paper cutter on his desk. With a sudden blow he struck the snake on the neck knocking it to the floor and then he made his escape from the room.

His interest in poisonous snakes dates back to his boyhood days when he spent much of his time in some of the Pennsylvania streams wading and fishing. One day but for the quick action of his companion and guide, he would have been struck in the face or throat by a large rattlesnake coiled in the crotch of a bush. After they had killed the snake, young Mitchell seized the opportunity to examine the fangs of the serpent. This incident aroused his curiosity to such an extent that he later published a number of articles relative to snakes and their poisons.

(To Be Continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

An Experienced Advertiser Talks on Costs

Occasionally an advertiser feels that the rates charged by Colorado Medicine are high. Invariably it is an inexperienced advertiser who speaks thus; others frequently remark that we should increase our rates in spite of the depression. Occasionally a doctor criticises manufacturers or dealers for their advertising expenditures, in the belief that products could be sold more cheaply if advertising costs did not have to be figured into the price of each product. Happily these objecters are few; but there may be others who think the same way without having ever put their thoughts in writing, and for them this is written.

Colorado Medicine deeply appreciates the comment of an advertiser of long experience, effectively refuting every such argument. Whenever a manufacturer trims his costs he increases his profits, or reduces his prices, or does both. No manufacturer is in business "for his health," so when the most firmly entrenched companies spend increasing amounts to keep their products advertised before the medical profession, no other proof of the economy of such advertising should be needed.

At the New Orleans session of the American Medical Association, the Executive Secretary of the Colorado State Medical Society conferred with the executives of many large manufacturing firms. One of these called attention to criticism received from a Colorado doctor concerning the amount of money spent by the firm in journal advertising. Though the doctor had been answered personally, we felt the manufacturer's reactions would be interesting, and we requested that they be set forth in a letter at a later date.

Accordingly, although the letter was meant to be personal, we have since obtained permission to reproduce it in full with the elimination only of names. We believe the letter one of the finest tributes to state medical journal advertising ever penned, particularly when it is considered that it was written without any thought of publication, by the advertising manager of one of the world's largest manufacturers of pharmaceutical products.

Here is the letter:

Dear Mr. Sethman:

In our conversation at New Orleans I promised to send you the substance of the statement made in rejoinder to physicians who had criticized our medical journal advertising on the grounds that the cost was high and had to be passed on to the physician and the patient in the price of the products. What I am giving here is not for publication as I think there is not enough interest in the subject to warrant any general statements and there is no need of taking the time or attention of physicians generally to attack a straw man.

Your state medical journal requires 1,700 copies of our colored insert, which cost approximately $13.50. The carrying charge for this in one issue of the journal is $45.00, making a total cost of $58.50. This makes the insert that goes to each physician cost 3.4 cents. It always represents two products or two groups of products.

From this it can be seen that if we should make an allowance in the price of the product equivalent to the cost of advertising, the fraction of saving to any one patient or to the total amount of the items prescribed by any one physician would be so small that it could not be represented in any of the terms of our U. S. coins.

Another point that is particularly important is that the greatest possibilities of price reductions come through economies resulting from increased production in response to a demand which advertising helps to create.

In the case of the colored inserts, practically three-fourths of the amount expended by the manufacturer goes to the journals that carry the advertising; and of the advertising on black and white pages, practically all of it is paid to the medical journal. If it were not for the advertising undoubtedly most of the state medical journals

could not be maintained except at a heavy cost to the state societies, which would necessitate charging a very high subscription rate, one that would work a hardship on many physicians. The same is true of other medical journals, so that after all the amount the advertiser pays out rebounds indirectly to the benefit of the physician.

I think the only point to be made of the story I told you, based upon two complaints only—one from Colorado and one from Arkansas—is that the advertiser helps maintain the medical journal at a low cost to the physician, and that advertising helps to increase production and lower the cost of medicaments to the consumer.

Stop in and see us when you are going through the city.

Very truly yours,

.....

The above letter reveals the carefully considered views of a successful manufacturer, a friend of the medical profession. Should any further reminder be needed that the Colorado doctor who thinks, talks, writes, boosts and patronizes Colorado Medicine advertisers is doing himself a mighty big personal favor?

WOMAN'S AUXILIARY

The Woman's Auxiliary to the Colorado State Medical Society this year, 1932, is ending the first decade of its existence, having been organized in 1922, with Mrs. Franklin P. Gengenbach as first president. Eight counties have been organized during those ten years as follows: El Paso, 1926 (disbanded this year); Denver, Otero and San Juan, 1927; Mesa and Weld, 1929; Larimer and Pueblo, 1930; and we have members at large in Boulder, Chaffee, Delta, Fremont, Las Animas, Northeast, Prowers, San Luis, and Morgan.

The annual meeting of the Woman's Auxiliary to the Colorado State Medical Society, as we all know, is to be held this month, September 8, 9, and 10, at Estes Park with headquarters at the Standley Hotel. Those who have attended these state meetings before are confirmed enthusiasts. Everything anyone likes to do is provided—golf, dancing, bridge, and luncheons—besides the meetings. In the beauty of Estes Park, and in the luxurious Stanley Hotel, let us all try to attend and renew the pleasant friendships of former years among the other county auxiliaries. Along the more serious side, each auxiliary can profit by the ideas and experiences of other auxiliaries.

The committee in charge of the annual meeting is composed of our hostess auxiliary officers, members of Larimer County: Mrs. W. A. Kickland, social chairman; Mrs. V. E. Cram, incoming president; Mrs. W. F. Brownell, past-president; Mrs. B. L. Adams, vice president, and Mrs. Duane F. Hartshorne, secretary-treasurer.

The incoming president of our state auxiliary is Mrs. B. Franklin Blotz who will carry on the excellent work of Mrs. T. Mitchell Burns.

Through Mrs. Kickland, we are all extended a most cordial invitation to be on hand, if not for the whole meeting, at least for part.

Looking Backward

At the first of this year our tasks were outlined by the national organization as follows: 1. To secure advisory councils for every Auxiliary, state and county. 2. To have as far as feasible in state and county Auxiliaries, chairmen corresponding to those in the national Auxiliary, particularly: Organization, Health Education or Program, Public Relations, Hygeia, Press and Publicity. 3. To extend our influence by (a) the enlargement of our membership in Auxiliaries already organized, paying particular attention to re-enlisting those who have formerly been members and have dropped out. (b) the organizing of new state and county Auxiliaries where the whole-hearted co-operation of the respective medical societies or associations is assured. 4. To have Educational Programs for Auxiliary meetings, national, state, and county, as well as to carry on social and philanthropic activities. 5. To inspire our Auxiliary women to assume leadership in promoting, under professional guidance, health programs and health projects in other women's organizations to which they belong. 6. To assist the medical profession in promoting education of the public by means of: (a) recommending and providing scientific literature for health programs in other organizations to which our members belong. (b) securing professional speakers for such health programs. (c) promoting American Medical Association "Radio Talks". 7. To promote, as a special health education project, the distribution of Hygeia, the health magazine published by the American Medical Association. 8. To collect and disseminate information concerning Auxiliary activities through our pages in the The Bulletin of the American Medical Association and the Auxiliary pages of the various State Medical Journals. 8. To hold in the spring the best national convention we have ever held and to have in every state this year the best annual meeting the State Auxiliary has ever held.

Probably no one Auxiliary feels that it has accomplished each task. But at the end of the year it is well to take inventory of what has been done, and on what we must concentrate our efforts for the next year.

With the legislature convening this coming January, it is not too early to bring our influence to bear on other clubs, and particularly on those individuals who are up for election. The medical profession is at a critical place in Colorado to retain its high standards of health practice against the onrush of urged legislation of the cultists to obtain equal "rights" in the art and practice of healing. We have pledged our support to the medical societies. This year we can prove that pledge.

MRS. DOUGLAS W. MACOMBER,
State Chairman of Press and Publicity.

MEDICAL SOCIETIES

This department of Colorado Medicine is set aside for reports of recent meetings, announcements of future meetings and accounts of other important activities of the county and district societies, composing the Colorado State Meical Society. Every meeting of every local society should be reported. If your society is not represented, see that your secretary reports the next one, or that some other member is appointed to the task. Other societies want to know what your society is doing.

* * *

LARIMER COUNTY

The Larimer County Medical Society held its regular monthly meeting August 3, at the Armstrong Hotel, Fort Collins. Following the usual banquet a short business meeting was held. It was moved and seconded that the President appoint a committee of three to formulate a resolution in connection with the death of our fellow member, Dr. W. A. Kickland. It was moved and seconded that the Society elect a delegate in the place of Dr. T. C. Taylor who was serving as an alternate at the same time. A unanimous vote was cast for Dr. C. H. Platz as delegate for 1932-1933.

The Scientific program followed, with Dr. Paul Connor of Denver as the principal speaker of the evening. Dr. Connor delivered a splendid talk on the subject of "Endocrinology." The Society membership entered heartily into a discussion of Dr. Connor's paper. Guests of the evening were Doctors Dickey, Setzler, Newsom, Kingman and Mr. Robertson, all of Fort Collins, and Dr. L. W. Storey of Laramie, Wyoming.

C. E. HONSTEIN,
Secretary.

Obituary

Burton Baker Grover

Dr. Grover, for many years a prominent physician in Colorado Springs, died July 23 following a paralytic stroke which he suffered last March.

He was born in Wyoming County, New York, June 25, 1858. He received his preliminary education in New York and in 1879 received his medical degree from the Long Island College Hospital. He practiced in New York State until 1882 when he moved to Grimes, Iowa, where he remained until 1892. Together with associates he purchased the town site of Grimes and did pioneer work in developing the town and its industries. In 1892 he came to Colorado Springs where he practiced until his death.

In 1910 Dr. Grover retired from active practice and devoted himself to the study of physical therapy. At Kansas City, Mo., in 1919 he organized the Western School of Physical Therapy and with members of the class of 1919, launched the Western Association of Physical Therapy. He was an associate editor of the Medical Herald and Physiotherapist and the American Journal of Physical Therapy.

Dr. Grover was elected to membership in the El Paso County Medical Society in 1894 and had served as President of that Society.

He is survived by a daughter, Mrs. Clarence Underhill of Colorado Springs, and four grandchildren, to whom the El Paso County and Colorado State Society extend their sincere sympathy.

COLORADO NEWS NOTES

DENVER—Dr. and Mrs. Oliver McGillicuddy have moved to Lansing, Mich., where they will make their home.

FORT COLLINS—Dr. W. F. Brownell has purchased the equipment of the late Dr. W. A. Kickland and will remove his offices from the Colorado Building to the Robertson Building where he will continue his eye, ear, nose and throat practice.

CRAIG—Dr. David M. Cook of Craig was appointed county health officer to fill the vacancy created by the absence from Moffat County of Dr. J. G. Clayton.

PUEBLO—Dr. R. H. Kampmeier of Pueblo has accepted an appointment as Assistant Professor of Medicine at the Louisiana State University Medical Center at New Orleans. Before coming to Pueblo he was on the faculties of the University of Chicago and the University of Michigan Medical Schools.

SALIDA—Dr. F. N. Cochems of Salida attended the Olympic games at Los Angeles.

SIMLA—Dr. Gale O. Groves of Simla has been appointed Elbert County coroner.

POST-GRADUATE WORK AT MAYO'S FOR RESERVE OFFICERS

The medico-military course of inactive duty training for Medical Department Reserve officers, which has been held at the Mayo Clinic during the past three years, will again be held this year from October 16 to 29, both dates inclusive. This inactive duty training will follow the plan so well worked out under the auspices of Colonel George A. Skinner and the military features will be under his personal supervision.

This medico-military course is based on the sound principle that when the Reserve Officer gives up two weeks of his time for inactive duty training at his own expense he should derive some benefit therefrom which will definitely help him in his profession. This method of training takes cognizance in a high degree of this principle in that the student officer gets two weeks of excellent clinical post-graduate work without fee and without any greater loss of time from his practice than normally is incurred for post-graduate work along professional lines. At the same time he gets a definite amount of medico-military training, the benefits of which he retains.

In furtherance of this concept, the Mayo Clinic has freely placed all of its clinical material, laboratory, museum, library, and so forth, at the disposal of the Medical Department Reserve Officers taking this inactive duty training. The faculty and staff of the Mayo Clinic have volunteered to give their services free in the interests of national defense.

This short course is equally applicable to general practitioners and specialists. The morning hours are devoted to purely professional subjects selected by the student officers. The afternoon hours pertain solely to medico-military subjects and the evening hours are covered in a lyceum course of general interest.

Application for this course of inactive duty training should be made either to the Director of the Mayo Foundation, Rochester, Minnesota, or to the Corps Area Surgeon, Seventh Corps

Area, Omaha, Nebraska. Applications should state the character of the work the candidate desires to follow in the morning hours. All student officers are expected to attend and to participate in the afternoon and evening sessions. Each applicant should fully understand the invitation to accept this course of study without charge is extended by the Mayo Clinic; that the project is without expense to the government; and that two hundred hours' credit will be given to those who take and complete the course.

THE CONGRESS INTERNATIONAL DE LA LITHIASE BILIARE

Vichy, France

September 19-22, 1932

Under the patronage of the leading clinicians and investigators of France, an important series of symposia dealing with ailments (particularly calculi) of the liver and biliary tract has been arranged. Representative authorities from the leading countries of Europe, North and South America, and Asia will present these or take part in the formal discussions.

All phases of the subject chosen will receive attention. The sections upon roentgenology, experimental investigation and therapy offer unusual progress. The leading surgeons of Europe will present the latest in operation technic. There will be an unusual pathologic exhibit.

An attractive series of social and recreational features has been planned in a beautiful environment.

Participation in all the educational and social features of the Congress is secured by registration and the payment of a fee of 50 francs (French). Reduced rates for travel and hotel residence have been secured.

The official program of the Congress and information respecting steamship rates, hotel accommodations, etc., may be secured by addressing

FRANK SMITHIES, M.D.,
President of the Congress for the United States.
920 N. Michigan Ave., Chicago, Ill.

AMERICAN ASSOCIATION FOR THE STUDY OF GOITER

Review of the Meeting at Hamilton, Ontario, Canada

This conference held June 14 to 16, 1932, proved to be the largest and best conference in the history of the association, there being 376 registrations. This indicates the interest taken by the medical profession in the study of the goiter problem. Owing to prevailing economic conditions, it was naturally expected and predicted that the attendance would be small.

Dr. R. M. Howard of Oklahoma was elected president, the retiring president was Dr. M. O. Shivers and the incoming president, Dr. Henry Plummer.

An excellent program was presented. Of special interest was the feature of dry clinics conducted by men particularly qualified and prepared to make the clinics instructing and enjoyable—Drs. Roscoe Graham, E. R. Arn, and J. K. McGregor.

The plan and recommendations of the International Goiter Conference Invitation Committee were adopted by the Executive Council. This infers a large representative American delegation to the Second International Goiter Conference which will be held in Berne, Switzerland, early in August, 1933, and almost the certainty that the third international conference will come to America in 1937.

Colorado members in attendance were Drs. Frank E. Rogers, M. O. Shivers, and S. D. Van Meter.

AMERICAN UROLOGICAL ASSOCIATION, WESTERN BRANCH

The Western Branch Society of the American Urological Association has just concluded a very successful meeting at Portland, Oregon, one of the most successful, in fact, of its history. In spite of the present economic conditions, the atdence was the largest ever recorded. Members came by auto, train, bus, and airplane. One plane started at Dallas, picked up men at Tucson, Los Angeles, and San Francisco, to land them on time in Portland.

Papers were scientific and timely and discussions were helpful.

The social program was full and the entertainment varied. Much thanks is due the arrangements committee, of which Dr. Albert E. MacKay was chairman. Mrs. MacKay and aides welcomed and entertained the ladies.

Officers elected at the meeting were:

President, A. W. Hunter, Vancouver, B. C.

President-elect, F. S. Dillingham, Los Angeles.

Secretary-treasurer, George W. Hartman, San Francisco.

Executive committee, W. G. Shultz, Tucson; Miley B. Wesson, San Francisco; Wirt B. Dakin, Los Angeles.

The following were elected to honorary membership:

Professor Alexander Von Lichtenberg, Berlin, Germany; Dr. Arthur Chute, Boston, Mass.; Dr. E. G. Crabtree, Boston, Mass.; Dr. W. E. Lower, Cleveland, Ohio; Dr. N. G. Alcock, Iowa City, Iowa; Dr. George R. Livermore, Memphis, Tenn.; Dr. Robert C. Coffey, Portland, Ore.

PERPETUAL MEMORIAL FUND IN HONOR OF DR. JOHN B. DEAVER, SURGEON, TEACHER, HUMANITARIAN

The Aid Association of the Philadelphia County Medical Society is establishing a special perpetual fund in honor of Dr. John B. Deaver, only the income of which will be used to afford aid to needy physicians and their families. All friends of Dr. Deaver are invited to participate. Any amount given will help in creating a fund which will be a fitting Perpetual Memorial.

The Aid Association of the Philadelphia County Medical Society, organized May 6, 1878, incorporated September 25, 1878, has as its officers Dr. Charles A. E. Codman, president; Dr. Lewis H. Adler, Jr., vice president; Dr. Francis Heed Adler, Secretary; Dr. Isadore P. Strittmatter, treasurer; Joseph J. Brown, Esq., solicitor.

The directors are Dr. James M. Anders, Dr. E. John G. Beardsley, Dr. Henry E. Brown, Jr., Dr. Paul B. Cassidy, Dr. John M. Fisher, Dr. Annie B. Hall, Dr. Myer Solis-Cohen, Dr. DeForrest P. Willard and Dr. George Woodward.

All money received will be placed in the Dr. John B. Deaver Perpetual Memorial Fund. Checks should be drawn to the order of the Aid Association of the Philadelphia County Medical Society and sent to Dr. Francis Heed Adler, Secretary, 313 So. 17th Street, Philadelphia, Pa.

Colorado State Medical Society
Officers, 1931-1932

President: Edward Delehanty, Denver.

President-elect: Frank B. Stephenson, Denver.

Vice Presidents: First, H. C. Goodson, Colorado Springs; Second, Lanning E. Likes, Lamar; Third, C. E. Sidwell, Longmont; Fourth, L. L. Hick, Delta.

Constitutional Secretary: Lorenz W. Frank, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 656-658 Metropolitan Bldg., Denver. Telephone KEystone 0870.

Delegates to the American Medical Association: Senior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver; Junior, Crum Epler, Pueblo; Alternate, J. N. Hall, Denver.

Councillors:		*Term Expires*
District No. 1	Ella A. Mead, Greeley	1935
District No. 2	G. P. Lingenfelter, Denver	1934
District No. 3 (Chairman)	George D. Andrews, Walsenburg	1933
District No. 4	W. W. Crook, Glenwood Springs	1936
District No. 5	C. A. Davlin, Alamosa	1932

Standing Committees, 1931-1932

Credentials: Lorenz W. Frank, Denver, Chairman; L. L. Herriman, Alamosa; George T. O'Byrne, La Junta.

Scientific Work: C. S. Bluemel, Denver, Chairman; W. A. Kickland, Fort Collins; A. J. Markley, Denver.

Sub-committee on General Scientific Exhibits: Maurice Katzman, Denver, Chairman; E. D. Downing, Woodmen; Amherst Merriman, Pueblo.

Sub-committee on Roentgenological Exhibits: Leonard G. Crosby, Denver, Chairman; John S. Bouslog, Denver; George A. Unfug, Pueblo.

Arrangements: Lowell Little, Fort Collins, Chairman; W. B. Hardesty, Berthoud; William P. Gasser, Loveland; Roy F. Wiest, Estes Park; Gerald B. Webb, Colorado Springs, ex-officio.

Public Policy: H. R. McKeen, Denver, Chairman; H. S. Finney, Denver, Vice Chairman; W. W. King, Denver; B. B. Jaffa, Denver; James A. Philpott, Denver; George H. Curfman, Salida; Z. H. McClanahan, Colorado Springs; W. W. Harmer, Greeley; Carbon Gillaspie, Boulder; Edward Delehanty, Denver, ex-officio; L. W. Frank, Denver, ex-officio; Mr. Harvey T. Sethman, Denver, ex-officio.

Publication: William H. Crisp, Denver, Chairman; C. F. Kemper, Denver; C. S. Bluemel, Denver.

Medical Defense: C. F. Hegner, Denver, Chairman; W. W. Wasson, Denver; T. D. Cunningham, Denver.

Medical Education and Hospitals: Herbert A. Black, Pueblo, Chairman; Fred A. Forney, Woodmen; Philip Hillkowitz, Denver.

Library and Medical Literature: Frank W. Kenney, Denver, Chairman; E. E. Evans, Fort Morgan; James J. Waring, Denver.

Co-operation with Allied Professions: John Andrew, Longmont, Chairman; Robert L. Downing, Durango; T. E. Carmody, Denver.

Medical Economics: John M. Foster, Jr., Denver, Chairman; John B. Crouch, Colorado Springs; B. B. Blotz, Rocky Ford.

Necrology: John F. McConnell, Colorado Springs, Chairman; George A. Moleen, Denver; Robert B. Porter, Glenwood Springs.

Special Committees, 1931-1932

Medical Extension: Maurice H. Rees, Denver, Chairman; O. M. Gilbert, Boulder; C. E. Harris, Woodmen.

Industrial Commission Fees: William H. Halley, Denver, Chairman; William Senger, Pueblo; John R. Espey, Trinidad; George B. Packard, Denver; Harold T. Low, Pueblo.

Advisory Committee to the School of Medicine: Charles O. Giese, Colorado Springs, Chairman; N. A. Madler, Greeley; Fred M. Heller, Pueblo; T. Leon Howard, Denver; J. A. Hipp, Olney Springs; G. C. Cary, Grand Junction; Walter E. Hays, Sterling.

Cancer Survey: C. B. Ingraham, Denver, Chairman; Sanford Withers, Denver; Glen E. Cheley, Denver; John B. Hartwell, Colorado Springs; James D. Carey, Fort Collins; C. A. Davlin, Alamosa; John P. McDonough, Gunnison.

State Registration Fee: Gerrit Heusinkveld, Denver, Chairman; Peter J. McHugh, Fort Collins; Claude E. Cooper, Denver; O. D. Groshart, La Junta; Lee Bast, Delta.

Veterans' Legislation: J. W. Amesse, Denver, Chairman; Lee H. Winemiller, Denver; Louis V. Sams, Denver; E. L. Timmons, Colorado Springs; Crum Epler, Pueblo.

Constituent Societies
Meeting Dates; Secretaries

Arapahoe County—Last Monday of each month; secretary, W. C. Crysler, Littleton.

Boulder County—Second Thursday; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, G. W. Larimer, Salida.

Crowley County—Second Tuesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, H. I. Barnard, Denver.

El Paso County—Second Wednesday of each month; secretary, W. A. Campbell, Jr., Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs, Colo.

Huerfano County—Third Thursday of each month; secretary, J. M. Lamme, Walsenburg, Colo.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, Walter C. Keller, Genoa.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, C. E. Honstein, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—First Tuesday of each month; secretary, H. M. Tupper, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each month; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Thursday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, R. J. Rummell, Lamar, Colo.

Pueblo County—First and Third Tuesday of each month; secretary, L. L. Ward, Pueblo.

San Juan—Second Saturday, January, April, July and October; secretary, R. L. Downing, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Weld County—First Monday of each month; secretary, Tracy D. Peppers, Greeley, Colo.

WYOMING SECTION

President, F. L. Beck, Cheyenne Vice President, J. L. Wicks, Evanston
President-elect, H. L. Harvey, Casper
Secretary, Earl Whedon, Sheridan Treasurer, Evald Olson, Meeteetse
Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne
Councillors: G. P. Johnston, Cheyenne J. H. Goodnough, Rock Springs F. C. Shafer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan R. H. Sanders, Rock Springs E. L. Jewell, Shoshoni

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

High Frequency Treatment of Sinus Infection

YEARS have passed since electricity was first discovered. Yet what is it? Can an average person define and explain it to his neighbor? It is true that great men like Edison have discovered and applied it commercially, mechanically, and otherwise, but it remains one of the greatest mysteries of the age.

Since its first introduction in medicine, every year has marked new uses for this power, and we have just begun the search for its many possibilities. With every new medical discovery, abuses of the treatment follow, some of them due entirely to ignorance, and others are simply fakes. In the faking class there arose a few years ago many who used different forms of electricity, such as static, D'Arsonval, sinusoidal, and high frequency in any and all diseases without any resultant benefits. Fakers simply used electricity to rob the public right and left. So it is with considerable reluctance that we report our experiences with the use of high frequency in the cure of sinus infections. We want it distinctly understood that we do not claim to understand the reason for the results obtained. The exact workings are unknown and yet how little do we comprehend our radio or x-ray equipment?

About ten years ago we began the use of the high frequency currents for the relief of frontal sinus pains. At that time we had not thought that a cure would result from their use. We did find that after five minutes' application of the glass vacuum electrodes to the forehead and bridge of the nose, patients would remark that their heads no longer ached. The pain oftentimes would be relieved for hours. At that time we were shrinking the membranes and turbinates and using catharsis, opening the sinus, and irrigating.

As we said before, when we began with high frequency applications we had no idea of a cure from these applications, but in a few days we noticed decided changes in the radio-grams as well as marked improvement in the patients' condition. The purulent discharge changed color and was less irritating. The nasal mucus membrane took on a different color, and often after the first two or three treatments the red lines down the throat disappeared. Patients report that the morning pains did not come on at the usual time and were not so severe when they did, and that with a few days' treatment they were relieved of all pain.

For the past nine years we have used only the following treatment: a shrinking spray followed by a five to ten minute application of the high frequency current, using a glass vacuum electrode. We have found that the higher the frequency the better it acts and that it is not necessary to make the application painful or disagreeable to get the best results. The results have been wonderful and we are convinced that most cases of sinus infection can be cleared up in one or two weeks' time without an operation. Changes in the thickness of the mucus lining of the sinuses are noticeable in a few days and a feeling of well-being is so common that most patients remark about their increasing well-being.

Scientifically we cannot explain the changes taking place. We believe, however, that some stimulation must occur through the blood to account for the marked improvement and early cures.

We do not claim to destroy a polypus in the antrum by this treatment. The Caldwell-Luc operation or some of its modifications are necessary in polypus cases. We have seen hundreds of antrum and sinus cases get well and stay well from this high frequency treatment. A report was made during the Sheridan Meeting of the Wyoming State Medical Society and considerable discussion followed. The results have been so gratifying that we should be glad to have others try this treatment and report their convictions.

E. W.

On to Estes Park and the Colorado Meeting

LOOK over the splendid program of the Sixty-second Annual Session of the Colorado State Medical Society and see what you are going to miss if you do not attend that meeting in Estes Park. It is true that times are hard and that the trip will be a long one for many of the doctors in Wyoming, but how can we afford to miss such a meeting even if we do have to drive across the state of Wyoming and part of Colorado to arrive? More fortunate are the doctors of Cheyenne, Laramie, Rawlins and other southern Wyoming cities, and no doubt they will take advantage of the Colorado meeting. We hope that several of the Wyoming medical men will arrange to go to return the many visits which have been made by the Colorado men to our meetings.

Show our southern neighbors that we appreciate their invitation to attend and let us get all out of their splendid program that is possible. E. W.

Remember!
Estes Park, September 8, 9, 10,
Sixty-second Annual Session.
Come!

Rural Doctor Can Assume Major Role

Neglect of preventive medicine by the general population is one of the major causes in the increased cost of medical care. Some means will be devised for bringing medical care to the general population at a cost satisfactory to physician and patient.

The need for expansion in the United States is definitely indicated in a recent statement by the Committee on the Costs of Medical Care, of which Secretary Ray Lyman Wilbur is chairman. Vermont, being two-thirds rural, was selected by the Committee for study as being fairly representative of a large part of the United States. The complete findings and recommendations of the Committee will be announced in the fall of 1932. The salient facts of this preliminary statement—that preventive medicine is neglected, that 30 per cent of the money spent on medical care is wasted, that physicians are poorly paid and their offices lacking in modern equipment—point to increased public health work as a means of improving all these conditions.

Preventive medicine, the Committee found, is sorely neglected. For example, 70 per cent of the people studied had had no dental care during the year. Adequate public health work means health education where it is needed—for the poorer people. With proper health education the deplorable waste of over $2,000,000 of the $7,500,000 annually spent on medical care in Vermont could be abolished, and the ailing would turn to reputable physicians instead of to patent medicines, home remedies, and inferior practitioners.—(Medical Service.)

Mottled Tooth Enamel

C. S. Kramar, D.D.S., of Colorado Springs, discussed before members of the Western Branch of the A. P. H. A. the causes of mottled enamel so common in many districts. This occurs in over 50 per cent of the native children of Colorado Springs, and has been traced recently to fluoride deposits in the water. Fluorides attack the enamel while teeth are forming and interfere with the natural position of the rods and enamel.

PROCEDURES WHICH SHOULD BE ROUTINE IN THE POST-OPERATIVE CONDUCT OF A SURGICAL CASE*

DUVAL PREY, M.D.
DENVER

To follow a routine procedure only becomes dangerous when we permit ourselves to become so lax that we thoughtlessly consider it to be sufficient, and it then becomes no longer a means to a definite end, but the procedure is the end indeed. I therefore feel no hesitancy to suggest certain routine procedures to be used in the post-operative care. These measures have been proved both clinically and experimentally to a sufficient degree that we at the present time may, with perfect safety, consider them as facts. Do not misunderstand me to suggest that these procedures are new; not at all—my plea is only that they be used routinely rather than in the hit or miss, desultory fashion which is now in vogue.

The post-operative care of a patient may be divided into two parts. The object of the first is to alleviate the immediate results of the surgical trauma; the aim of the second is to prevent the sequelae so frequent after an operative procedure.

During an operation, the liver is called upon to supply sugar to the blood stream; hence its supply of glycogen may be nearly exhausted. This may be best restored by the injection of a small amount of a highly concentrated glucose solution intravenously, immediately upon the completion of the operation. This serves a threefold purpose: first, it supplies an excellent stimulant to the myocardium; second, it is a moderate diuretic; and third, it lessens the tendency of the tissue's balance toward an acidosis, with all the symptoms which that condition entails. Especially is the nausea and vomiting which so frequently follows an ether anesthesia definitely lessened by supplying the body with the proper amount of glucose. There are many ways in which this may be done, but it seems that the immediate routine injection of 30 c. c. of a 50 per cent glucose solution intravenously will in the vast majority of cases be sufficient; however, should a greater quantity be needed, it may be repeated by hypodermoclysis or by the continuous intravenous drip, in of course a greater dilution. It has again been recently proved experimentally that glucose is not absorbed by the large bowel and therefore it is inadvisable to use it in the form of a rectal drip.

In this connection, let me cite the work of McNealy and Willems, among many others, who have found after the most careful experimental studies of both the portal blood and of the solution which was recovered from the large bowel, that glucose is not absorbed by the colon, and that interestingly, physiological salt solution is absorbed more rapidly than water.

Combating the loss of body heat by the application of external heat is seldom neglected and therefore its discussion has no place in this paper, except to emphasize its value in the routine care of the surgical patient.

Supplanting the loss of body fluids is invaluable. The methods used depends upon the individual. Tap water may be given by rectal drip and its absorption expected. Physiological salt solution like glucose is most satisfactorily given either subcutaneously or intravenously, and if by the former method the addition of a small amount of novocain to the solution lessens the discomfort. Our routine is to give fifteen hundred cubic centimeters of physiological salt solution subcutaneously immediately upon the patient's return to his room. Tap water by rectal drip is started later in the day, and both are repeated as frequently as is deemed necessary for that individual case.

It is generally accepted that an atelectasis is a fairly frequent occurrence following a surgical procedure, and if neglected, a pneumonitis will follow. This can best be prevented by stimulating the respiratory center

*Presented to the Denver County Medical Society, January 19, 1932, and to the Wyoming State Medical Society at its annual session in Rock Springs, July 18, 1932.

with carbon dioxide inhalations. Adams and Livingstone have frequently shown that the complete obstruction of the air passages to an entire lobe is essential to the production of a massive atelectasis. There is also an intralobular respiration which prevents an atelectasis in the case of a lobular obstruction. The clearance of the obstruction depends upon the amount of air in the occluded lung and, as has been shown by Van Allen, its absorption is definitely accelerated by a straining respiration. A high nitrogen content in the trapped alveolar air, on the contrary, acts as "buffer" and delays this absorption.

The complete aeration of the lungs following carbon dioxide stimulation is a preventive measure, and as a measure of prevention its greatest value is to be obtained within the first twenty-four hours. It therefore follows that all patients should be "washed out" with carbon dioxide immediately after the operation and that it should be repeated at frequent intervals for the first day.

In a previous article, published in April, 1931, in Colorado Medicine, I pointed out the value of posture as a means of combating the shock, which is always present to a certain degree following any surgical trauma. The tremendous advantage to the patient from the routine use of this procedure is remarkable. The foot of the bed is elevated by means of "shock blocks:" while the patient is in the operating room, and on his return, he is placed in this posture and kept in this position for the first twenty-four hours. This not only has the advantage of alleviating the shock, but it has the further advantage of lessening the nausea and vomiting seen so frequently after any general anesthesia. Let me repeat then that I consider the routine use of "shock blocks" imperative to the proper management of the post-operative care.

It is neither honest nor just to permit patients to suffer unnecessarily. I think surgeons frequently forget that they have a threefold duty to humanity: to cure when possible, to prolong life, and to relieve suffering. We should study to cause our patients as little pain as possible, and with the routine use of carbon dioxide as a respiratory stimulant, we may safely use morphine in a sufficient quantity to minimize the patient's suffering. I think it is safer and therefore wiser to use small doses, frequently repeated, than a single large dose, particularly when it depends entirely upon the nurse's judgment, as it must always do, as to the time of administration.

Walters, at the Mayo Clinic, found that he was able to reduce the incidence of fatal post-operative pulmonary embolism from .34 per cent in 64,000 cases to .09 in 4,500 cases by thyroid feeding, which increases the pulse rate, and raises the blood pressure and metabolism. This is a further improvement upon the accepted method of exercising the legs either actively or passively, twice a day during the convalescence.

Until a furthering of our present knowledge as to the causes for post-operative thrombosis and embolism, we must rely upon those procedures which prevent puddling of the blood, due to a slowing of the blood stream. Exercises of the legs twice daily should of course be routine, as it requires no extra effort on the part of the surgeon and no extra ability on the part of the nurse. The use of thyroid should have special indications, but it is a safe routine procedure in those cases with a sluggish blood stream.

Bancroft has recently reported his findings on certain factors of the blood itself, which can be influenced by diet and the drug, sodium thiosulphate. This, however, needs further study and until we have a more definite working basis, we must rely upon the routine procedures of thyroid feeding and leg exercises for minimizing the occurrence of post-operative thrombosis.

The prevention of surgical parotitis has a definite place in post-operative care. Carlton in the Annals of Surgery, Vol. XCIII, No. 4, found that "dryness of the mouth" was as important an etiological factor as oral infection. In a series of 1,000 cases of peptic ulcer treated by oral starvation, the incidence was 4.5 per cent as against 0.4 per cent in those permitted water by mouth. Thus parotitis occurred ten times as often in

patients with dry mouths. This is particularly important to remember in the cases having undergone a gastric procedure or a cholecystectomy, where we frequently deny fluids by mouth for the first twenty-four or forty-eight hours, and by permitting the patient to rinse his mouth with water or better, a mild mouth wash, we may definitely lessen his danger of developing this most unpleasant sequela.

These few preceding routine measures are of proved value in protecting patients against the more common sequelae of an operative procedure. And it behooves us, as surgeons, to utilize every possible means at hand, that we may lessen the morbidity and mortality rate of surgical trauma.

Summary

A few measures which should be routine in the post-operative care of surgical cases:

1. Supplying the body with a proper amount of glucose.
2. Combating shock by
   a. Preventing the loss of body heat.
   b. Supplanting the loss of body fluids.
   c. The routine use of "shock blocks."
3. Aerating the lungs by means of carbon dioxide inhalations.
4. Permitting a sufficient amount of morphine for the patient's comfort.
5. Minimizing the occurrence of post-operative thrombosis and pulmonary embolism by leg exercises and thyroid feeding.
6. The use of a mouth wash as a preventive measure against surgical parotitis.

LADIES' AUXILIARY

The Ladies' Auxiliary

THE Ladies' Auxiliary of the Wyoming State Medical Society held a most delightful and interesting series of meetings during the recent State Meeting of the Wyoming Medical Society at Rock Springs, July 17, 18, and 19.

The doctors' wives of the Sweetwater County Medical Society certainly put forth every effort to entertain the visiting ladies. A special committee met the ladies on their arrival and the first evening Mrs. E. L. Lauzer served a buffet supper and an informal meeting served to make all the visitors acquainted. From such gatherings friendships grow.

Monday morning Mr. G. Knox, manager of the Gunn-Quealy Coal Co., personally conducted the ladies and their husbands through that modern coal mine. This was a most interesting trip and greatly appreciated by all who were fortunate enough to make it. At noon the Sweetwater ladies took the visitors to Green River where a bridge luncheon was served at the Union Pacific Dining Room. Returning to Rock Springs the annual banquet tendered by the Sweetwater Medical Society followed by a dance at the Elks Club completed the day. The banquet and dance were largely attended and greatly enjoyed.

Tuesday morning the visiting ladies were again entertained by the local ladies at a 9:30 breakfast at "Howard's." A business meeting followed and the following officers were elected: President, Mrs. E. L. Jewell of Shoshoni, elected President-elect last year. Mrs. W. O. Gray of Worland was elected President-elect; Mrs. H. L. Harvey of Casper, Treasurer; Mrs. E. L. Lauzer of Rock Springs, Secretary. Donations were made to the Cathedral Home at Laramie and the Home Tending Society of Cheyenne.

The President appointed Mrs. W. O. Gray of Worland and Mrs. W. A. Bunten of Cheyenne to have charge of any social activities at the Yellowstone Park meeting next year. Plans were made along the lines suggested by President Edward H. Cary of the American Medical Association for next year's activities.

This meeting was one of the most interesting of the many meetings held by the Ladies' Auxiliary, and we believe all the ladies will attend the Yellowstone Park meeting next year. E. W.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V September, 1932 No. 9

WHEN the idea of periodic health examinations was proposed a few years ago, it was hoped that many cases of early tuberculosis would be discovered by that means. Experience has somewhat dampened this early enthusiasm. This disappointment, however, does not warrant the conclusion that the periodic health examination cannot serve the hoped-for end. The reasons why better results were not achieved were analyzed by a special committee and published in "The Health Examiner," a publication of The Greater New York Committee on Health Examination.

TUBERCULOSIS AND THE HEALTH EXAMINATION

In spite of much popular education the majority of cases of tuberculosis are not discovered until the disease is already well advanced. Williams and Hill, who studied the experiences of 1,499 patients in tuberculosis sanatoria, found that 12% on admission to the sanatorium were classified as minimal tuberculosis, 43% were moderately advanced, and 45% were far advanced.

The family doctor is on the firing line. The early symptoms of tuberculosis are usually indefinite and the patient first of all consults the doctor "around the corner." We cannot, however, always charge the delay in making a diagnosis to the doctor. More frequently the patient is himself responsible for the delay or the disease itself may be so insidious as to cause no alarming symptoms until the advanced stage has been reached. Williams and Hill found that of the 1,499 patients interviewed, 33% sought medical advice within one month after the first symptom appeared; 29% allowed a period of one to five months to elapse before going to the doctor; 9% waited from six to eleven months; 24% delayed from one to twenty years.

Delay in Diagnosis

Tuberculosis organizations have repeatedly given forceful publicity to the early symptoms of tuberculosis including the urgent advice "to let your doctor decide." Such publicity almost invariably calls forth from certain laymen the criticism that the doctor is incapable of deciding. While such comments are doubtless unfair, they do raise the question as to how promptly the diagnosis is made by the physician, once the patient has come to him.

Williams and Hill found that the physicians took less time to decide that their patients had tuberculosis than the patients required to become aroused to their need of medical advice. At least 43% of the group were diagnosed within a month of the first visit and almost one-half of these were told they had tuberculosis at the first consultation. This record is distinctly commendable. The less favorable side of the picture is that 16% of the patients had to wait a year or more before they were told they had tuberculosis.

A more severe test of the ability to make diagnoses early may be made by analyzing only the group diagnosed as "minimal," of which there were 181 (out of the total of 1,499). Of this minimal group 70 came to the doctor within one month of the appearance of the first symptom. Twenty-six (37%) of them were diagnosed within the first month and 15 (21%) waited a year or more before a diagnosis was made.

What is the hope of discovering early tuberculosis among patients who come complaining of no particular symptom but simply for a health examination? The danger signs are frequently overlooked, perhaps because doctors are not always "tuberculosis conscious." The early signs of tuberculosis (with the exception of hemoptysis and pleurisy) seldom direct attention forcibly to pathological changes in the lungs. The symptoms are usually vague and indefinite. Lawrason Brown has said it might be well for every doctor to hang a sign in his office reading "Remember Syphilis and Tuberculosis" for these are the two great simulators of other diseases. It is true that one should approach each patient with an open mind and make deductions only from the findings,

but since we "see what we know" it is certainly not amiss to keep in the background of one's mind the possibility of tuberculosis in every case.

Finding Tuberculosis In Youth

To be "tuberculosis conscious" is particularly necessary when examining youngsters in their late teens and early twenties. The dramatic rise of the tuberculosis death rate in the age period 15 to 25 contrasted with the low rate during early childhood, suggests that adolescence is for many the transition period; indeed the critical period for many who develop tuberculosis.

Most cases of adult type tuberculosis represent a super-infection on previously infected soil. In the adolescent period the sleeping embers of tuberculosis seem to burst into flame within a relatively short time. Then it is that we should be unusually alert for any danger signs of developing tuberculosis. Nor should it be forgotten that certain types of tuberculosis progress rapidly, as for example the subapical type in which the disease seems to develop acutely in the lung region immediately below the clavicle. From that focus it may spread or gradually become chronic, and the suspicion of some is that apical type generally considered to represent very early pathological involvement, is but the remains of a subapical, acute process. Other forms of acute development are the miliary and bronchopneumonic types.

History and Physical Signs

Pulmonary tuberculosis may exist without any suggestion of ill health. While the history at best can be only suggestive, a careful history-taking is important. Underweight is no measure of the presence of tuberculosis, although rapid loss of weight is very suggestive. Of great significance is any suspicion that the patient has been in contact with a case of tuberculosis in the family, particularly if exposure has taken place during childhood. The constitutional symptoms such as fever, undue fatigue, rapid pulse, loss of weight, night sweats, draw one's attention to no special organ. Localizing symptoms such as cough, expectoration, hemoptysis, pleurisy, focus our attention on the lungs. Hemoptysis and pleurisy with effusion are strongly presumptive. If there is one typical symptom of tuberculosis it is fatigability. The more obscure the fatigability is, the greater is the suspicion that tuberculosis is its cause.

Skill in interpreting physical signs of tuberculosis lesions in the lungs depends on an understanding of the pathological mechanism. The variations are too many to discuss here. One general principle is that rales in the upper segments of the lungs warrant the presumption of pulmonary disease, probably tuberculosis. The nature of the rales whether fine, crepitant, or moist, makes little difference—any rale that persists after the patient coughs should excite the suspicion that tuberculosis is present. To elicit rales the patient is instructed to cough slightly at the end of each expiration. Rales, if present, will be heard immediately after the cough and perhaps at the beginning of the next inspiration. The time has passed when we wait for the finding of tubercle bacilli before venturing a diagnosis. The sputum should be examined repeatedly, but a negative finding in no wise excludes the presence of early tuberculosis.

In all instances in which the chest examination reveals abnormal signs, a radiograph should be made. In patients with suggestive symptoms and negative physical signs, a radiograph should also be made, for some early lesions can be discovered only in this way.

Should the tuberculin test be included? Early statistics created the impression that all adults and nearly all children reacted positively to the test. For that reason the value of the test was unwarrantedly discounted. Later observations have shown that infection is by no means so widespread. A positive reaction in an adult is of scant significance, but a negative reaction speaks volumes; it almost certainly excludes tuberculosis.

A Group Disease

Tuberculosis should be regarded as a group disease. Hence when a case of tuberculosis has been discovered the entire family should be examined, not only at that time of discovery of the active case, but also periodically thereafter. The examination of the children should include the tuberculin test and, if the reaction is positive, a radiograph. In examining contacts, one should not omit the older persons of the household. It happens only too often that the grandmother with a "summer cough" or the elderly uncle with a "bronchitis," harbor in their fibrotic lungs tubercle bacilli which they excrete over a period of years without ever being aware of it.

Periodic health examinations should be one of the best case-finding methods known. What is necessary is an understanding of this protean disease, a constant awareness of it and thoroughness in the ordinary techniques known to every doctor.

The Health Examiner, April 1932.

Doctor! You Are Invited to Attend

THE OKLAHOMA CITY CLINICAL SOCIETY'S

Third Annual Fall Clinical Conference

October 31 to November 4, 1932

21 DISTINGUISHED GUEST LECTURERS:

Dr. E. H. Cary, Dallas (Opthalmology)
Dr. Hugh Young, Baltimore (Urology)
Dr. John Lovett Morse, Boston (Pediatrics)
Dr. W. Wayne Babcock, Philadelphia (Surgery)
Dr. Warren T. Vaughn, Richmond (Allergy)
Dr. Wm. Engelbach, New York City (Endocrinology)
Dr. LeRoy Sante, St. Louis (Radiology)
Dr. Hugo Ehrenfest, St. Louis (Obstetrics)
Dr. Louis J. Hirschman, Detroit (Proctology)
Dr. Julius Bauer, Vienna, Austria (Internal Medicine)
Dr. Henry H. Kessler, Newark, N. J. (Industrial Surgery)
Dr. E. Spiegel, Vienna, Austria (Neurology)
Dr. Donald Balfour, Rochester, Minn. (Surgery)
Dr. Elliott G. Brackett, Boston (Orthopedics)
Dr. Fredrick A. Willius, Rochester, Minn. (Cardiology)
Dr. Ralph C. Brown, Chicago (Gastro-enterology)
Dr. Frank Smithies, Chicago (Internal Medicine)
Dr. William V. Mullin, Cleveland (Otolaryngology)
Dr. Henry E. Michelson, Minneapolis (Dermatology and Syphilology)
Dr. George Gray Ward, New York City (Gynecology)
Dr. Gerald B. Webb, Colorado Springs—(Chest)

GENERAL ASSEMBLIES—ROUND TABLE LUNCHEONS—EVENING SYMPOSIA—POST-GRADUATE COURSES—COMMERCIAL AND SCIENTIFIC EXHIBITS

Registration fee of $10.00 includes all above features.

For further information address

Secretary, 301 West Twelfth Street, Oklahoma City

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

Colorado Hospital Association

OFFICERS

FRANK J. WALTER President Saint Luke's Hospital Denver	GUY M. HANNER First Vice President Beth-El Hospital Colorado Springs	SISTER SEBASTIAN Second Vice President Mercy Hospital Denver	R. J. BROWN Treasurer Boulder-Colorado Sanatorium Boulder	WILLIAM McNARY Exec. Secy. Univ. of Colo. School of Med. & Hosp. Denver

TRUSTEES

G. M. HANNER Beth-El Hospital Colorado Springs, Colorado	B. B. JAFFA, M.D. Denver General Hospital Denver, Colorado	G. WALTER HOLDEN, M.D. Agnes Memorial Sanitarium Denver, Colorado	J. E. SWANGER Modern Woodmen of America Sanatorium Woodmen, Colorado	MAURICE H. REES, M.D Univ. of Colo School of Medicine and Hospitals Denver

Coming Meetings:

American Hospital Association Annual Meeting—Detroit, Michigan, September 12-16.

American College of Surgeons Annual Meeting—St. Louis, Missouri, October 17-21.

Colorado Hospital Association Annual Meeting—Colorado Springs, Colorado, November 8-9.

❧ ❧ ❧

Hospitalization Through Periodic Payment

THERE has recently been a great deal said about sickness insurance, or, more correctly speaking, hospital insurance. The plan very briefly is as follows: An individual pays to the hospital a certain stipulated sum per month for a period of a year, and if during that year he should become ill the hospital will, in consideration of such payments, render him care for a stated period.

There is much to be said for and against this plan, both from the hospitals' point of view and the medical standpoint. The editor invites statements regarding the project, pro and con, from hospital executives and from the medical profession.

❧ ❧ ❧

We Are Invited to Estes Park

THE Executive Secretary of the Colorado State Medical Society has extended the following official invitation to all hospital executives, through our own Executive Secretary:

"Both personally and officially, I want to extend to you, and through you to all members of the Hospital Association, an invitation to attend the Sixty-second Annual Session of the Colorado State Medical Society in Estes Park next month. Doctor Frank B. Stephenson, President-elect, who will become President at the opening of our coming meeting, joins me in this invitation and asks me to urge that every hospital superintendent, who can possibly do so, make it a point to attend our meeting. In addition to such affairs as our annual banquet and dance, I am sure that there will be much of our general program that will be of very genuine interest to the officers and members of the Hospital Association. The complete program of our meeting is published in the August issue of Colorado Medicine."

The hospital people appreciate the courtesy extended in this invitation, and will be present at the meeting, Sept. 8, 9, and 10.

Our hospital and the medical professions are so closely bound together that the economic conditions affecting one are immediately reflected upon the other. The Colorado Hospital Association takes this means of thanking the Colorado State Medical Society for its consideration and cooperation.

❧ ❧ ❧

The American Hospital Association Meeting

THE AMERICAN HOSPITAL ASSOCIATION will hold its Annual Meeting in Detroit, September 12 to 16. This promises to be the most important meeting the American Hospital Association has ever held—more important than those held in 1917 and 1918, during the war period.

The private hospitals of the United States and Canada have been tremendously affected by the business depression. Their incomes have decreased, whether they depended upon private endowment, philanthropic donations, or were supported by paying patients; and at the same time their charity load has increased greatly. The most important problem before the members of the Association at the convention will be that of balancing their budgets in the face of present conditions. The situation is acute, but there is no need of being alarmed regarding our voluntary hospital system if we conduct ourselves sanely and judiciously. The problem is too difficult and complex a one

(Continued on Page Twenty)

WORLD'S LARGEST AND OLDEST MAKERS OF SPECIALLY DESIGNED SURGICAL SUPPORTS

-BARCLEY-

Designing service offers doctors a complete line of surgical supports for every need and purpose, designed and made to the exact measurements and individual requirements of each and every patient—men, women and children. Factory, Newark, N. J.

Denver Office: 210-211 Barth Bldg. Phone MA. 0564

FRANCES VILES, Supervising Corsetiere Res. Phone, FR. 2092

Service rendered in patient's home, hospital or doctor's office, any time, day or night. Just phone and we will meet your convenience.

Our friends of the nursing profession will appreciate our stock garments, SMART-FORM, "true to its name." A smart and distinctive combination, girdle, brassiere and support.

AIR TRANSPORTATION

Safety — Comfort — Speed

Waco and Stinson Aircraft

READY TO GO—WHEN YOU ARE



WESTERN FLYING SERVICE

Municipal Airport, Denver. Ph. York 8273



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721



WOODCROFT HOSPITAL—PUEBLO, COLORADO

Woodcroft Hospital was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent

H. A. LaMOURE, M.D., Medical Director **F. M. HELLER, M.D., Neurologist and Internist**

P. A. DRAPER, M.D., Resident Physician





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course

SAINT LUKE'S HOSPITAL

Under the Supervision of the Protestant Episcopal Church

MEDICAL, SURGICAL, OBSTETRICAL ORTHOPEDIC and PEDIATRIC SERVICES

225 Beds—32 Bassinets

Fully Equipped for Scientific Diagnosis and Treatment
Roentgenologist and Pathologist Constantly Available for Consultation

Established 1881 **Pearl St. at Nineteenth**
Denver

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING

Saint Francis Sanatorium

Denver, Colorado

Attractively located on an elevation of 5200 feet with an extensive view of the snow-capped Rockies. Within easy access to the city of Denver by bus or carline. Rooms steam-heated with running water and connecting baths. Special attention given to bed patients. Excellent nursing care, service and food. Professional service—Ultra Violet lamp, artificial pneumo-thorax.

RATES $50.00, $55.00 AND $60.00 PER MONTH
Exclusive of medical attention

Operated by the Sisters of Saint Francis

325 KING SPruce 4268 DENVER

THE ROBINSON CLINIC

The Robinson Neuropsychiatric Clinic offers a complete service to the physicians of the Southwest for the diagnosis and treatment of all afflictions affecting the nervous system. Among these may be listed the following:

A study of the psychotic patient, to determine the cause and a rational method of therapy to alleviate the symptoms.

A training school for different children which provides medical treatment, without interrupting the school work, and also provides schooling for those who cannot attend the regular schools.

A complete neurosyphilitic service, including the latest form of heat therapy—generalized diathermy—which gives all of the advantages of malaria without the dangers.

A sane treatment of drug addiction, which takes into account the underlying psychic causes and attempts a permanent cure by removal of these factors.

A diagnostic service for organic neurological conditions, including complete laboratory studies where indicated.

As mentioned before, we have felt that rate reductions were advisable and this has been done within the last few months.



Airplane View
Courtesy Curtiss-Wright Flying Service

Nervous and Mental Diseases
G. Wilse Robinson, Jr., M.D.
Assoc. Medical Director

G. Wilse Robinson, M.D.
Medical Director
1432 Professional Bldg.
8100 Independence Road
Kansas City, Mo.

Drug and Alcohol Addiction
Paul A. Johnson, M.D.
Internist



Home for Convalescents

You may enjoy all the comforts and privileges in our home exactly as you have had in your own. Clean rooms, well ventilated, with running water. Fine sleeping porches, excellent food, temptingly served. A splendid nurse in attendance. Intelligent and courteous service.

2555 W. THIRTY-SEVENTH AVE.

GAllup 0298 Denver, Colo.



A QUIET, restful nook for elderly ladies. Modern conveniences. Artesian water. Fine shade and shrubbery. Day and night nurses. Mild mental cases invited. No tuberculars. Rates very reasonable.

THE McCLELLAND HOME

920 Griffith Lane, Arvada, Colo.

Phone Arvada 533

Meeker Home

* * *

A Home and School for Sub-Normal Children

* * *

Study rooms, playgrounds, fruit and vegetable garden, dairy and home influences.

Rates very reasonable.

LYDIA G. MEEKER, Director

5187 Lowell Blvd. GAllup 4849

Denver



The House Beautiful

Overlooking Washington Park

For a Few Elderly People

1286 S. Gilpin, cor. Louisiana Ave.

SPruce 7840 Denver

HAGBERG'S
Convalescent Home

Located in the residential section of the city, adjacent to Cheesman Park. Special attention to diets—tray service—nurses' care.

Reasonaable Rates

1212 Vine Street Denver, Colorado

DENSIN TOOTH POWDER
A Natural Dentrifice

Serves Three Purposes:
MOUTH WASH
GUM HARDENER
TOOTH CLEANSER

A powder that should please the most discriminating.

For sale by all druggists—thirty-five cents

SNYDER LABORATORIES
228 E. & C. Bldg. Denver, Colo.



The MATCHETT

979 DOWNING ST. YOrk 5444

A refined, exclusive home for old people, convalescents and mental cases. Competent nurses day and night. Beautiful rooms, well ventilated and comfortable. Reasonable rates in accordance with service and care.

NOT AN INSTITUTION MRS. CAROLINE M. MATCHETT
Established Over 30 Years Formerly Mrs. Caroline Gregerson

ODERINE SANITARY NAPKINS

THE LATEST improvement for particular women who deem it a necessity to be dainty.

A deodorized napkin especially useful in cases of profuse menstruation.

Cartons of one dozen, 25 cents.

ODERINE DISTRIBUTING CO.
226 EMPIRE BLDG. DENVER, COLO.



INVALIDS
ELDERLY PEOPLE

Desirable Environment

REAL HOME CARE

GRAY and PALMER
147 W. Irvington SPruce 5758

The Cocks-Clark Engraving Co.
Illustrators — Designers
Photo Retouchers and Engravers
Tabor 6244
2200 ARAPAHOE ST.
DENVER

BRONZE TABLETS
BENEFACTOR'S MEMORIAL PLATES FOR HOSPITALS
IN STAMPED BRASS OR CAST BRONZE
BRASS AND BRONZE SIGNS
FOR THE PHYSICIAN
SACHS-LAWLOR
DENVER
ESTABLISHED 1881

ANN ROWLAND HOME

A QUIET, centrally located private home where elderly people are welcome. Sensible meals, appetizingly served. Practical nurse renders every assistance. Not an institution—not a sanitarium—just a home with home comforts.

1579 EMERSON TAbor 0027

For Old Folks

Mrs. Worrell's Home

Where the rate is low enough to be within the means of the most economical.

95 BANNOCK ST. DENVER, COLO.

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

« CAMP » SURGICAL SUPPORTS

Competent Fitter

SYBIL CASSELL

Ethical cooperation with the medical profession.

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

The American Hospital Association Meeting

(Continued from Page Ten)

for any single individual to work out alone, but the ideas and experiences of all brought together in the discussions of the convention will contribute toward a more efficient handling of the situation. Even though an entire solution may not be reached, the presentation of different phases of the matter will be worth the time spent in attending the meeting.

At the present time of economic stress one hesitates to incur for himself or his organization the expense of attend a convention, but those who have participated in such meetings in the past know by experience that the knowledge and inspiration gained are worth more to a hospital executive and to his institution than the actual expense involved. Every member of the Colorado Hospital Association who can possibly do so should plan to be in Detroit for the September meeting.

Care of Veterans

THE CARE of the veterans is always a current topic of discussion at meetings of the American Hospital Association, the American Medical Association, or any of their sectional bodies. Up until the present time the request of both of these associations, that no additional government hospitals be built for the hospitalization of veterans, but that the vacant beds in the civilian hospital be used for that purpose, seemed to have met with rejection; but recent attempts to balance the national budget have brought forth from other sources the same type of protest against the building of these new hospitals by the government.

The American Hospital Association and the American Medical Association do not at this time condemn the care being given to the veterans by the already established institutions rendering such service, but they do feel that if the government is to care for the ex-service men it can do so in existing private hospitals at a cost the same or

ECONOMY

in Liver Therapy

DOCTOR WILLIAM P. MURPHY of the Peter Bent Brigham Hospital, Boston, Mass., recommends (Journal A.M.A., March 26, 1932) the use of intramuscular injections of material derived from 100 grams of liver as an economical and satisfactory method of treating pernicious anemia.

He states:

"Finally, mention may again be made of the economy possible through the use of parenteral extract as compared with the expense of either liver or liver extract administered orally."

Solution Liver Extract *Lederle*

is a concentrated product. It is marketed in packages of three vials, *each vial containing in three cubic centimeters the material obtained from 100 grams of liver.* It is thus convenient for carrying out the effective dosage as recommended by Murphy.

Distributed by

HEALY & OWENS
1400 Larimer Denver, Colorado

LEDERLE LABORATORIES INC.
New York

PRESCRIBE
KNOX
SPARKLING GELATINE
IN DIETS FOR DIABETES
LIQUID and SOFT FEEDING
REDUCING and ANEMIA

KNOX is pure, granulated plain gelatine with 85-86% protein content. Free from flavoring, coloring or sweetening—therefore combines safely and perfectly with fruits, vegetables and other foods for all diets.

KNOX *is the real Gelatine*

Data and Recipe Books on Request

KNOX GELATINE LABORATORIES, 418 Knox Ave., Johnstown, N.Y.

. . . and after the operation?



This delicious food-drink provides extra nourishment

without burdening the weakened system

COCOMALT, being a delicious high-calory liquid food of easy digestibility, is especially recommended during convalescence. Prepared according to label directions, it adds 110 extra calories to a glass of milk, *increasing its food-energy value more than 70%.* It provides extra proteins, carbohydrates and minerals (calcium and phosphorus)—and contains not less than 30 Steenbock (300 A D M A) units of Vitamin D per ounce. Cocomalt is licensed by the Wisconsin Alumni Research Foundation (Steenbock patent). Cocomalt is valuable during pregnancy and lactation, and for malnourished children. At grocers and drug stores in ½-lb., 1-lb. and 5-lb. size. Powder form, vacuum packed—easy to mix with milk, HOT or COLD. *Reasonable in cost.*

ACCEPTED AMERICAN MEDICAL ASSN Committee on Foods

Accepted by the American Medical Association
[COMMITTEE ON FOODS]

Cocomalt bears the seal of acceptance of the Committee on Foods of the American Medical Association. That is your guarantee of its trustworthiness.

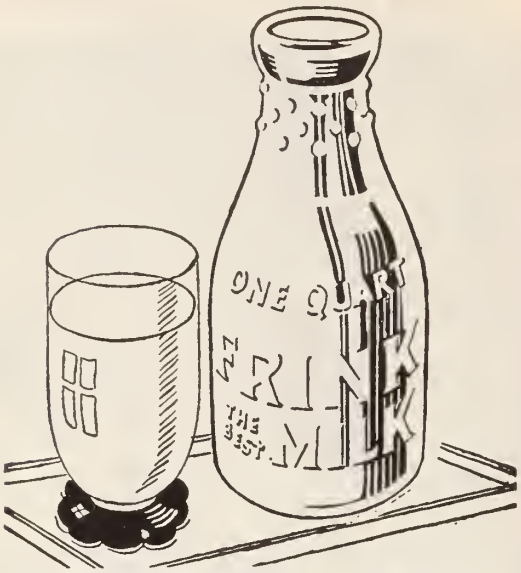
Free to Physicians

For a trial can of Cocomalt. send your name and address to R. B. Davis Co., Dept. 43R Hoboken, N. J.

Cocomalt

Cocomalt is a scientific food concentrate of selected cocoa, skimmed milk, sugar, whole eggs, flavoring, barley malt extract and added Vitamin D.

ADDS 70% MORE NOURISHMENT (FOOD-ENERGY) TO MILK
(Prepared according to label directions)



FRINK

Golden Flake

BUTTERMILK

REFRESHMENT that lingers! Its tempting, zippy tang is a decided aid to jaded appetites and its chemistry an aid to digestion. Frink buttermilk is fresh every day. Drink it regularly yourself and prescribe it as the patient's requirements indicate.

Product of

The

CARLSON-FRINK CO.

MAin 0111

Denver's largest and cleanest home-owned dairy.

even less than that required to hospitalize them in the prospective hospitals, to be built new for that purpose.

Hospital Utilities Tax

THERE has been some uncertainty as to whether or not hospitals should pay a tax to the United States Government on electricity and gas consumed. The letter from Dr. Bert W. Caldwell, which follows, is self-explanatory. This tax, until a definite ruling is made, should be paid under protest, as there is no reason why public hospitals and those organized for non-profit should not be exempt.

My Dear Mr. Walter:

After I received your wire in connection with electricity it took some time to get the exact ruling for the use of electricity by hospitals. Some electric light companies will notify hospitals that the electricity furnished to them is not subject to tax. Nevertheless, there may be some cases where this is not understood. The following is the ruling:

"Reg. 24. Art. 40. (as amended by T. D. 4337, June 30, 1932, and by T. D. 4342, July 26, 1932) is to the following effect:

"All electrical energy furnished the consumer is taxable except * * * * (2) that furnished for other uses which cannot be classed as domestic or commercial, such as * * * * educational institutions not operated for private profit, churches and charitable institutions. However, electrical energy is subject to tax if consumed in office buildings, sales and display rooms, retail stores, etc."

"Persons claiming exemption on the ground that the energy furnished is not for domestic or commercial consumption must submit to the person furnishing the energy satisfactory evidence showing that it was used for purposes other than domestic or commercial."

"It seems clear that electricity furnished to hospitals is not 'furnished for domestic or commercial consumption, the only possible question that should arise being where a hospital is operated as a private institution, in which the electricity consumed might be regarded in part domestic and in part commercial, as such electricity would be most generally used for lighting, cooking, and other domestic purposes and might be considered as commercial because the electricity used was part of the facilities from which the hospital derived a profit, and, therefore, of a commercial nature. The Association has no specific ruling with regard to such institutions."

It would seem to me that where the hospital is not operated as a private institution for profit that it would be exempt and if I were in your place I would quote the ruling and ask the Collector of Internal Revenue to follow the ruling for your own hospital, as your hospital is both an educational and a charitable institution and not operated for profit.

The ruling and the information furnished in

TAYLOR-MADE
Kenlastic
REG. U.S. PAT. OFF
CORSETS

ARE MADE TO SUIT EVERY NEED FROM THE LIGHTEST WEIGHT GIRDLE TO THE HEAVIER SURGICAL CORSET

ABDOMINAL BELTS WITH CORSET BACK

SPINAL CORSETS WITH PELVIC STEELS AND SHOULDER STRAPS

A NEW KENLASTIC SEAMLESS STOCKING IS MADE WITH EXTENSION HEEL

CHAS. B. E. TAYLOR
ELIZABETH KENDRICK TAYLOR
204-5 McClintock Bldg.
1554 California St.
Denver, Colorado
Phone MAin 2357

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

Use DRYCO
in the treatment of MUCOUS COLITIS

In the acute stage, when the bowels are very toxic and the stools are largely composed of mucus, blood and sometimes pus, babies require but little feeding.
In the convalescent period, the following treatment has proved to be effective:

1. Irrigate the lower bowel.
2. The baby rests for two or three hours.
3. Give the baby Dryco half strength*, gradually increasing the concentration from day to day.
4. By the third day, stools usually have lost most of the mucus and begin to look smooth.
5. By the seventh day, stools are usually free from mucus. There are three or four bowel movements a day and the appetite increases.
6. A noticeable gain in weight follows. Keep the baby on Dryco.

*2½ level tablespoonsful of Dryco a day for each pound of body weight is "full strength" feeding of Dryco.

PRESCRIBE DRYCO IN MUCOUS COLITIS

Made from superior quality milk from which part of the butterfat has been removed, irradiated by the ultra-violet ray, under license by the Wisconsin Alumni Research Foundation, (U. S. Patent No. 1,680,818) and then dried by the "Just" Roller Process.

Send for Literature and Samples.

The Dry Milk Company, Inc., Dept. C, 205 East 42nd Street, New York, N. Y.

ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC
BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

MERCUROCHROME
220 SOLUBLE
in
OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

this letter were conveyed by Mr. Richard P. Borden, who is probably as good an attorney as there is in New England and who is the President of the Union Hospital in Fall River, Massachusetts, and a former Trustee of this Association, and can be depended upon.

I am sorry because of this delay, but I am sending the information to you by Air Mail in order to have the reply reach you as early as possible. I could not send the information by telegraph.

Very respectfully yours,
BERT W. CALDWELL, M.D.,
Executive Secretary, American Hospital Association.

HISTORY OF DIET IN FEVER*

HARRY GAUSS, M.D.
DENVER

If we examine the subject of fever historically, we find it divided into a number of interesting stages. First we see fever beginning as an evolutionary attribute of man to which he reacts by primitive instincts. Then, as man develops a conscious reasoning power, we see him regarding fever as a supernatural phenomenon to which he reacts by superstitious awe. We later witness man's attitude towards fever pass through several enlightening periods—to emerge finally as a definite scientific concept based on exacting laws of biochemistry, pathology, and bacteriology. Going hand in hand with it is the subject of dietetics, likewise beginning as a primitive instinct. It slowly passes through several enlightening periods to emerge as a definite scientific concept based upon exacting laws of nutrition. To begin the study of fever, we go back historically quite a long time—not a matter of a few hundred years or even a few thousands of years, but millions of years. We must go back to that remote geologic period when man had not as yet made his appearance on earth and the earth was inhabited by those pre-historic ancestors of man whose huge skeletons amaze us. It is simply a fact that those huge monsters that inhabited the earth millions of years ago were victims of fever. The skeletons of these early inhabitants of the earth show conclusively

*From the School of Medicine, University of Colorado. Read before the Colorado Hospital Association and the Colorado Dietetics Association, November 11, 1931, at Colorado Springs, Colorado.

SPENCER SURGICAL GARMENTS BELTS for WOMEN or MEN

With or Without — Ptosis, Hernia or Kidney, or Sacro Iliac Support } PADS

SPENCER CORSETS of DENVER

218 EMPIRE BLDG.

Expert corsetieres ready to serve you for either hospital or bed-ridden patients. Call TAbor 6289. No extra charge.

TAbor 6289

Conway's FLORAL SHOP

1064 SO. GAYLORD
PEarl 0622

Extends greetings to the Sixty-Second Annual Session of The Colorado State Medical Society

SANITARY SPECIALTIES COMPANY

2819-21 Larimer St. *Manufacturers and Jobbers* *DENVER, COLORADO*

OBSTETRIC NAPKINS
CRESOLIS COMPOSITUS
DEODORANTS
FLOOR WAXES

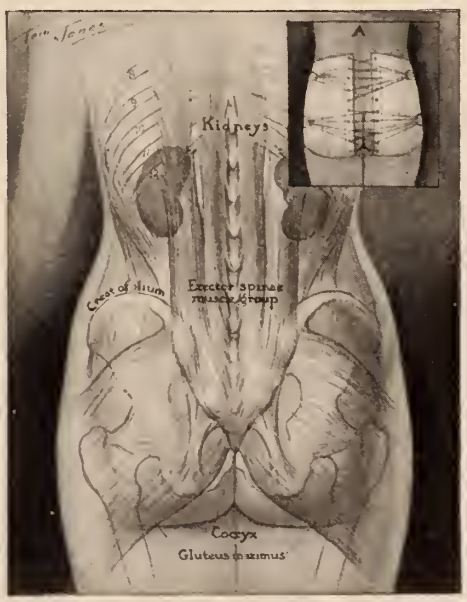
SANITATION MEANS HEALTH AND EFFICIENCY

NEUTRAL CLEANING SOAPS
INFANT'S LIQUID SOAP
LIQUID TOILET SOAPS
GREEN SOAP U. S. P.

HOSPITAL SOAP EQUIPMENT

"Everything for the Sanitation and Maintenance of Hospitals and Institutions"

ANATOMICAL STUDIES



THE LUMBAR AND SACRO-ILIAC REGION OF THE FEMALE

A (above) shows the application of one of the Camp Supports designed to provide maximum support to this region.

for the Practitioner

A Set of Anatomical Studies (in book form) furnished to physicians on request —upon receipt of 20c to cover mailing costs.

CAMP

Physiological Supports Scientifically Designed

S. H. CAMP & COMPANY
Manufacturers
JACKSON, MICHIGAN

Chicago
1056 Merchandise Mart

New York
330 Fifth Ave.

London
252 Regent St. W.

A Real Flush Valve



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter



Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen or Silk. Washable as underwear. Three distinct types, many variations of each.

The Picture Shows "Type N"

Storm belts adaptable to all conditions, Ptosis, Hernia, Pregnancy, Obesity, Sacro-Iliac Relaxations, High and Low operations, etc.

Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia

that they suffered from rheumatism, arthritis, pyorrhea, and other infections. It must be remembered that only those infectious processes which affect the bones have left telltale evidences of their existence in the skeletal remains of animals; while those which affect the soft tissues only leave no evidence in the skeletal remains of the animals, and these can only be conjectured.

Be it as it may, the historical study of fever begins properly with the animals that antedated man. It follows that man inherited his fevers from his ancestors even as he inherited the five digits of his hand, his scapula, and his clavicle. This, however, is an accepted principle of evolution and one that we need not dwell upon.

When an animal in the wild state has fever, it does two things: first, it hides; second, it abstains from food, unless such an animal is made irrational by its fever, when it runs at large and attacks all that it encounters, only to be destroyed by the results of its own folly. The natural reaction of the animal is to hide itself. This is its defensive reaction in the struggle for existence because such an animal is no longer competent to battle its former enemies and were it to make the attempt, its existence would soon be terminated. The abstinence from food results from two factors: first, it is a natural corollary to the act of hiding; second, it acts as a protective mechanism to help a digestive system from being overburdened with the coarse diet of health.

The habits of wild animals practiced through countless generations eventually became crystallized in the wisdom of the species as inherited instincts, so that it became instinctive for an animal to hide itself and abstain from food when it had a fever. Man, coming along in the evolutionary scheme of things, inherited these instincts, and when he became ill he hid himself and abstained from food; thus we come historically to the first principle of dietotherapy: namely, in the presence of fever, abstain from food.

As primitive man acquired wisdom, he developed a form of community life and with the advent of community life the early

THE OLD HOMESTEAD BREAD CO.

offers for your approval

The Formula of

KELPIN
Whole Wheat Bread

26	%	Montana W. W. Flour
26	%	Kansas Patent Flour
26	%	Water (filtered)
5	%	Powdered Milk
5	%	Cerelose
2	%	Salt
4	%	Shortening
1½	%	Diastatic Malt
½	%	Kelpin*
2	%	Honey
2	%	Yeast
100	%	

*Our Kelpin Has a Vegetable Iodine content of .11 per cent.

It is rich in iodides

It is rich in food value

It is well baked and sold fresh

CHANGING THE FLORA WITH A FOOD



LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)

The scientific carbohydrate food which combats intestinal putrefaction by encouraging the growth of a normal flora.

Nature's Method — More Effective
Samples and literature on request.
The Battle Creek Food Co.
BATTLE CREEK MICHIGAN

Announcing *The Introduction of*

THE STILPHEN
AIR CONDITIONING UNIT

Dependable—Simple—Economical
Particularly adapted for Hospitals—Institutions
Write for circulars illustrating and describing this machine

C. A. Stilphen Engineering and Manufacturing Co.
1129 Eighteenth St., Denver, Colo.
KEysotne 0929
Exhaust Fans for Ventilation



Nature Made It!

ORIGINAL
MANITOU
Sparkling Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

medicine man made his appearance. Now it is interesting to note that no matter where we study the habits of early community life —whether it is among the South Sea Islanders, the African aborigines, the Australian bushman, or our own American Indians—always there is the medicine man, variously designated as medicine man, witch doctor, voodoo doctor, magician, priest, or priest-physician. Always his function is to "make medicine," to interpret the supernatural to his people, and stand as an intermediate agent between his people and the things that they did not understand. Invariably we find that the primitive medicine man considered the fever-stricken person as one possessed of the evil spirit. The logical remedy, as he saw it, was to drive out the trespassing evil one. Accordingly he contrived grotesque dances, made terrifying masks and bizarre costumes, and so sought to drive out the evil spirit with dances, noises, songs, incantations, intonations, and sometimes with bribes and offerings. The Indians of South America even went farther than this and drilled holes in the skulls of the victims to permit an easy egress of the evil one, while too frequently the victim was left to his own metabolic resources. They were not concerned much with nitrogen balance in those days.

As early man acquired more wisdom, he developed his community life to a higher degree, although he still remained a barbarian. His conceptions of fever and therapy manifested themselves by an increased capacity for barbaric and ritualistic empiricism. Thus we find that in the treatment of fever, primitive man at this stage of culture has added a form of therapy to his ceremonial rites, and the victim of fever is given various preparations to partake of, such as concoctions, pastes, gruels, or powders made from sundry and unusual articles, as lizard's tails, camel's dung, or the horn of the mythical unicorn—the more unusual the source of the material the more potent it was alleged to be.

Today we smile tolerantly at these early barbaric customs, but nevertheless so began



INSULEX
GYPSUM INSULATION

Nine years of successful insulating service to over 3,000 Denver homes.

The Best Insulating
at a surprisingly low cost.

Estimates gladly given.

INSULATING PRODUCTS CO.
3220 MARIPOSA ST. GAllup 5845 DENVER, COLO.

MODERN AMBULANCE SERVICE
for MODERN NEEDS



AMERICAN AMBULANCE CO.
YORK 0070 • 1860 DOWNING ST • DENVER, COLORADO

There Must Be a Reason Why

Over FIFTY OF DENVER'S LEADING Furniture Dealers, Upholsterers, Warehouses, Dry Cleaners, Furriers, Rug Cleaners

USE AND RECOMMEND

"ARABIAN"

ODORLESS MOTHPROOF

YOU, TOO, Should DEMAND This GUARANTEED-FOR-LIFE PROCESS

Odorless . . . Colorless . . . Stainless

Will not dry clean or wash out—Only one application necessary

Look for the "Arabian" Sign in Your Dealer's Store. If He Cannot Supply You, Call

Manufactured and Guaranteed by

Arabian Chemical Co.

509 17th St., Denver. Phone MAin 4657

SOAPS Gets It TRADE MARK POWDERS

INSTITUTIONAL SANITATION

Hospitals, sanitariums everywhere find that "GETS IT" in its various forms can be relied upon to clean and purify any and every variety of surface in and out of doors.

PAINT CLEANER—For washing woodwork of all kinds, linoleum and floors. Porcelain, white enamel, stoves and frigidaires.

WHITE CREAM SOAP—Made of the purest of material. Will not harm hands. This soap is used by The City and County of Denver for washing painted walls, scouring floors, stained and spotted furniture.

Medicated Hand Soap, Scouring Soap Powder, Auto Soap, Glass Bright Powder and other Famous "GETS IT" products at wholesale prices direct to you.

Phone your requirements—get our prices.

FERRIN SOAP MANUFACTURING COMPANY

1948 LAWRENCE ST. TAbor 8733 DENVER, COLORADO

THE TULANE UNIVERSITY
OF LOUISIANA
Graduate School of Medicine
Approved by the Council on Medical Education of the A. M. A.
Postgraduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

24-HOUR SERVICE
AMBULANCE *and*
PULMOTOR SERVICE
DAY AND NIGHT PHONE
Main 830
John E. Wylie, Mgr.
112 Exchange Place, Colo. Springs, Colo.
Packard Invalid Sedan
Regular Equipped Ambulance

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5111
DAY STORAGE $5 PER MONTH
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

"Say it with flowers"
Park Floral Co.
Phones M. 1713-1714 1643 Broadway

early man's conception of fever, and his dietetic treatment of it. Let us make no mistake. The giving of a gruel alleged to contain powdered horn of the unicorn was clinical dietetics just as much as our dietetics is today, only with this difference: whereas they practiced empiric dietetics, today, we practice rational dietetics.

As man became civilized in our sense of the word, we find that he discards the superstitions of his fathers, and interestingly enough tends to revert in his practice to his primitive instincts. Thus among the early Greeks, the treatment of typhoid fever consisted of putting the patient to bed and giving him some weak tea or barley water, while even milk was kept away from the patients as it was considered a form of nourishment which might disturb him too much, so the starvation plan was carried out in the management of typhoid fever.

In the early part of the nineteenth century, an Englishman by the name of Graves appears on the medical horizon. Dr. Graves seems to be the man who was destined to upset this ancient and venerable custom. Dr. Graves saw many persons succumb to the ravages of the typhoid fever, and many emaciated persons emerge from the disease. He reasoned that many died of the disease, and many died of starvation. Being a man of courage, he expressed his belief that many victims of typhoid died of starvation, and consistent with his convictions he began to feed fever patients small quantities of milk. This seems like a simple thing to us today. But let us remember that we live in a rational age; Dr. Graves lived in an empiric age. As might be surmised in the case of any individual who had the effrontery to oppose a hoary medical dogma two thousand years old, Dr. Graves was promptly denounced and just about run into the sea.

Shortly, however, came a report from Russia by one, Dr. Bushuyev, who stated that he had planned a course of treatment for typhoid fever which included a diet of ordinary mixed foodstuffs and that his patients were stronger and happier than when treated by the starvation plan. Thus the plan of feeding came into vogue. But all

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

MATCHED OFFICE SUITE

IN PERIOD DESIGN

at just 1/2 price

Purchased from a Grand Rapids manufacturer who discontinued his line of office furniture and offered the salesroom samples at exactly one-half the regular prices.

This is a professional man's suite consisting of flat top desk, narrow refectory table, cabinet, carved four-fold screen, swivel chair and arm chair; in carved English oak with deep red leather.

STANDARD PRICE $780.00. OFFERED FOR $390.00

HOWARD LORTON INC.

724-746 SPEER BOULEVARD

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO-ENGRAVERS AND MAP MAKERS
KEYSTONE 5634 -830- 18TH ST.
DENVER, COLO.

this was empiric dietetics. Rational dietotherapy begins with the present century, and in the case of fever probably begins with the researches of Shaffer and Coleman.

Shaffer and Coleman studied fever, particularly typhoid, by the exact methods of biochemistry that had recently been developed, and, among other things, they made some calorimetric studies. They observed that the fever in typhoid patients is the results of increased heat production and that the increased heat production averages 40 per cent above normal, from which it follows that if a patient in a state of health needs a certain number of calories to maintain his state of nutrition, then the patient with typhoid fever needs 40 per cent in excess of the normal requirements; that is, the patient with typhoid fever needs a high caloric diet. Next it was shown that the patient in health can maintain his nitrogen equilibrium on two-thirds of a gram of protein per kilo body weight, whereas the typhoid patient needs at least one gram per kilo body weight. It was then shown that, because typhoid fever is primarily a disease of the small intestine, there is a loss of efficiency in the process of digestion and assimilation so that in place of theoretical increase of 40 per cent required to maintain the state of nutrition, it is necessary to double the usual caloric value of the diet. Because typhoid is a disease of the small intestine, it becomes necessary to alter the diet so that all intestinal stimulants and irritants are reduced to a minimum, and the diet is prepared that is easy to take, digest, and to assimilate. In terms of practical dietetics, it must be a bland diet. Because there is always the danger of acidosis in a fever, the diet must be prepared so that it contains considerable alkaline ash.

In conclusion, the dietetic treatment of fever begins in the remote past as an instinctive procedure, then as man acquires culture it takes on a ceremonial form intended to propitiate the evil spirits. Later it becomes submerged in barbaric empiricism and then passes through an enlightening period, finally to emerge as an exact science based upon definite laws of nutrition.

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources — We Insure Only Ethical Practitioners

David Jacobs, Manager — *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. — Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.

BALTIMORE, MARYLAND

W.T. ROCHE

Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 — YOrk 0901

18th at Gilpin

STATIONERY *and* PRINTED FORMS *of* ALL KINDS

PRINTING

PROGRAMS
REPORTS
YEAR BOOKS
CATALOGS

Over 25 Years of Satisfactory Service

THE MILES & DRYER PRINTING COMPANY

1936-38 Lawrence St. — DENVER — Telephone KEystone 6348

YEAST-A-BRAN

A delightful and refreshing ice cream product. Contains bran, yeast, chocolate and ice cream. Price, five cents per bar, sealed in sanitary container and sold at all drug store soda fountains. Never mussy, appreciated by young and old alike.

YEAST-A-BRAN DISTRIBUTORS

M. J. Maib, Manager

1621 18th St. — Main 3151 — Denver, Colo.

for Quality
Zinc Etchings
Color Plates - Half Tones
Seeleman-Ehret
Photo Engravers
Tabor 2701
1950 Champa Street
Denver Colorado

TOY TROPICAL FISH
40 Varieties Reasonably Priced
WATER LILIES POND SUPPLIES
FANCY BREEDING GOLD FISH
Ship anywhere; write for price list.
A Full Line of Aquariums, Aquatic Vegetation and Supplies
CHARLES T. GORE
4524 Decatur St. GAllup 0410

COLORADO COLLEGE of PODIATRY
1554 California St., Denver
Bertha DeWolfe, D.S.C., Dean
Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

CUSTOM MADE
NU-BONE
SUPPORTING OR FOUNDATION GARMENTS
For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.
RUBY A. BETTS
22 Lincoln SPruce 7998

The General Use of ORANGE TANG Is Becoming Well Established in
HOSPITALS AND SANITARIUMS
There's a Reason for It!
ORANGE TANG
is made from orange juice concentrated and dehydrated.
It has the fresh, delicate, piquant flavor of the original orange and the natural mineral contents.
Have you tried ORANGE TANG TABLE SYRUP? It is delightful. For people who are particular and ones who like syrup but syrup does not like them—here's an innovation.
Samples Supplied on Request
COLONIAL FOOD PRODUCTS COMPANY
814 TWELFTH STREET DENVER MAin 9129

LET
The WESTERN MESSENGER SERVICE



At your service, when you're in a hurry

Phone TAbor 5345

424 18th St.

Run Your Errands Denver Colorado

Distinctive—
UNIFORMS and SERVICE LINENS
CORRECTLY TAILORED FROM FINER FABRICS
Let Us Show You Our New Outstanding Values

E. F. STEPHENSON COMPANY
232 Cooper Building—at 17th and Curtis
Telephone MAin 7226 Denver, Colorado

The Barbour Combination Desk and Invalid Table

$4.50 Retail Price

INDISPENSABLE FOR THE BEDRIDDEN OR CONVALESCENT
Used in Bed for Eating, Reading, Writing, Sewing, Drawing or Studying

THE FLOYD BARBOUR CO.
2537 West Colfax Avenue Denver, Colorado

Send for descriptive pamphlet.

CAMP SURGICAL AND SEMI-SURGICAL SUPPORTS

Maternity Post Operative
Convalescing and Ptosis Supports
Abdominal Belts
Sacro-Iliac Binders, Orthopedic Back Splints

Mrs. J. M. Blinn Pfister, *Nurse*
SURGICAL CORSETIERE
Phone Main 7530
Hours, 7 a. m. to 1 p. m.
1515 Glenarm St. Denver, Colo.

Fine Upholstered Furniture Made to order

Furniture repairing of all Kinds

Henry Meyer
Upholsterer and Furniture Manufacturer
DENVER
538 East 17th Ave., at Pearl St.
Phone TAbor 4087

APEX FIXTURE CO.

Cabinet baths and special bath fixtures made to order for Hospitals, Sanitariums and Physicians.

628 15th St., Room 12 Denver, Colo.

L. D. DUTCHER Phone 2995-R



DUTCHER AMBULANCE SERVICE
BALLOON EQUIPMENT
INVALID SEDANS
315 West 4th Street Phone 390
PUEBLO

AETNA

COMPLETE MALPRACTICE PROTECTION

By joining hands with the members of your local, state or county medical or dental society, you can have, at a low premium, all the protective benefits of Aetna Group Professional Liability Insurance.

THE AETNA LIFE INSURANCE CO.
Fred E. Breisch, Manager
529 Midland Savings Building
KEystone 6205

Thirty-nine years in the same location

SELLING HIGH-GRADE

COAL, WOOD CHICKEN FEED HAY AND GRAIN

Honest Weight *Prompt Delivery*

The DeSellem Fuel and Feed Company
PH. TAbor 3205
3463 Walnut St. Denver, Colorado



The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

WINDSOR-MEADOW GOLD

MAin 5131

It Is Easy to Mistake the Purity of Drinking Water

HEALTH authorities note the danger of thinking water pure when it is merely cold. Dr. Frank Wells Crawford in his valuable and interesting book, "Preventable Diseases," says "that fully 50 per cent of all bowel disorders, including Typhoid and Dysentery, are the direct results of drinking water that is thought to be perfectly pure.

"The thing about drinking water that seems to deceive even careful parents is the false notion that when drinking water comes cold from the tap it is probably pure water. Nothing could be further from the truth. Merely because water is cold is no indication whatsoever as to its purity. The water might be at a freezing temperature, and still be infected with germ life. As a matter of fact, many disease germs actually thrive in ice."

Speaking before an assemblage of doctors and hygienists, Doctor J. C. Williams, health authority in New York City, some time ago labeled impure drinking water to be the most dangerous enemy of health, and the greatest "man killer" in all history.

"When our army was in France," says Dr. Williams, "it was a court martial offense for a soldier to drink any water not previously certified by medical officers, and this was a wise provision. Water, only slightly impure, will kill more human beings than all the ravages of war."

At a season when so many bowel troubles become prevalent, many physicians prescribe both Deep Rock Water and Deep Rock Distilled Water.

Deep Rock Water Co.

614 27th St. TAbor 5121

Denver, Colo.

(Delivered in handy half gallon bottles)

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of

ORTHOPEDIC APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.
Phone KEystone 2702
Denver, Colo.

WHY
EXCUSE YOUR STATIONERY
EVEN TO YOURSELF!

Every business day—letters and statements leave your office—a silent representative of YOU—

ARE YOU PROUD OF THEM?
Pass by the imitation!

USE GENUINE STEEL ENGRAVED STATIONERY!

Ask for Our Professional Men's Special Free Offer—New Low Prices

The
Kraft Engraving Co.
(Since 1895)
1221 California St. Main 2723
Denver

TRADE PYRIDIUM MARK

PHENYLAZO-ALPHA-ALPHA DIAMINO PYRIDINE MONO-HYDROCHLORIDE (MANUFACTURED BY THE PYRIDIUM CORPORATION)

FOR URINARY INFECTIONS

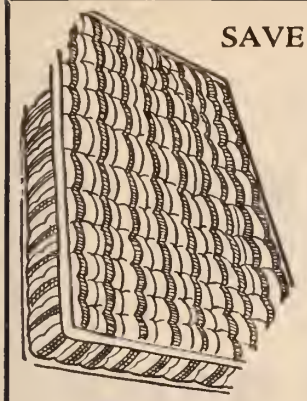
In the treatment of diseases of the genito-urinary tract where urinary antisepsis is important, physicians are showing a marked preference for Pyridium because of its chemical stability, penetrating action, and antibacterial properties. Literature describing the clinical use of Pyridium will be promptly furnished on request.



MERCK & CO. Inc.
MANUFACTURING CHEMISTS · RAHWAY, NEW JERSEY

MERCK

EIAI



SAVE TWO-THIRDS

By having us Renovate your old Mattresses, Pillows, Comforts, Feather Beds and Box Springs like new.

We convert your old Mattresses into new "SPRING CENTERS"

Also Upholstering work done very reasonably.

Union Mattress & Pillow Co.

2640 Larimer Street
Denver, Colorado
Tabor 5989

WANTADS

POSITION WANTED

Registered technologist and registered x-ray technician with eighteen years' experience in tuberculosis work, the last sixteen years at Agnes Memorial Sanitarium. Now seeking location due to closing of the sanitarium on July 1, 1932. Margery M. Malins, 2265 Forest St., Denver; telephone FRanklin 1997-J.

FOR SALE

Office equipment, library, surgical and laboratory instruments of the late Dr. Eugene H. Brown of Pueblo. Material may be purchased either as a whole or in units. For details communicate with the undersigned. Mrs. Julia A. Brown, 221 Van Buren Street, Pueblo, Colo.

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically
Special classes for Nurses.

Limited Class Now Forming
Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R — *Elna Hoagland, Pres.* — 3762 High St.

PRESCRIPTION PHARMACISTS

to the members of the

COLORADO STATE MEDICAL SOCIETY

City	Name and Address	Telephone
Denver	R. K. ANTHONY, 4901 Lowell Blvd.	GAllup 0294
Denver	BAIRD Pharmacy, 3850 Federal Blvd.	GAllup 0549
Denver	BROTHERS Pharmacy, 5001 E. Colfax	YOrk 2171
Denver	ESHER Drug Co., 2335 E. 28th Ave.	YOrk 0296
Denver	IMPERIAL Pharmacy, 319 16th St.	KEystone 1550
Denver	MUDGE Pharmacy, 3801 Walnut St.	TAbor 4523
Denver	SIXTH AVE. Pharmacy, 600 E. 6th Ave.	SPruce 9706
Englewood	JOHN T. HEPPTING, 3398 S. Bdwy.	Englewood 744
Littleton	LITTLETON Drug Co., Littleton	Littleton 133
Grand Junction	COPELAND'S Apothecary, 523 Main St.	Grand Junction 39
Salida	WAGGENER'S Pharmacy, Salida	Salida 400

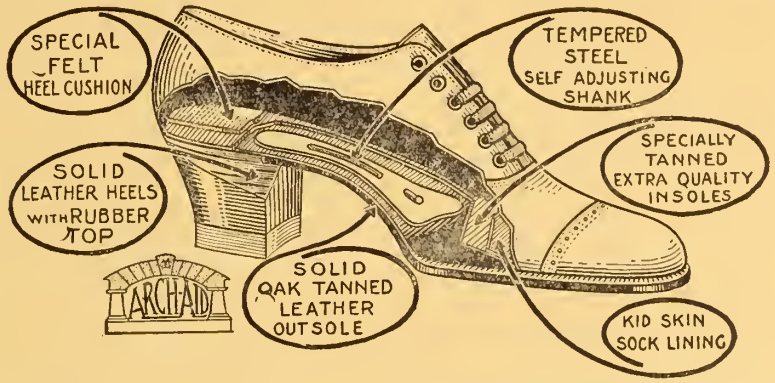
ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Aetna Life Insurance Company ---- 36
Ambulance Service Co. ---- 30
American Ambulance Company ---- 29
American Medical and Dental Association ---- Cover 2
Apex Fixtures Company ---- 36
Arabian Chemical Company ---- 29
Barbour, Floyd L. ---- 35
Barcley Corset Shop ---- 11
Battle Creek Food Company ---- 28
Betts, Ruby A. ---- 34
Boulder-Colorado Sanitarium ---- 14
Camp, S. H. and Company ---- 25
Carlson-Frink and Company ---- 22
Cassell, Sybil ---- 20
Chicago-Burlington & Quincy R. R. ---- 2
Children's Hospital ---- 13
Cocks-Clark Engraving Company ---- 19
Cocomalt ---- 21
Colonial Food Products Company ---- 34
Colorado Artificial Limb Company ---- 32
Colorado College of Podiatry ---- 34
Colorado Springs Psychopathic Hospital ---- 12
Conway's Floral Shop ---- 25
Corrective Foot Fitters ---- Cover 4
Cragmor Sanitarium ---- 15
Cutter Laboratory ---- Cover 4
Daniel-Smith Engraving Company ---- 32
Davis, F. A. Company ---- 5
Deep Rock Water Co. ---- 37
Denver Ice and Cold Storage ---- 7
Denver School of Swedish Massage ---- 39
DeSellem Fuel and Feed Co. ---- 36
Dry Milk Co. ---- 23
Dutcher Ambulance Service ---- 36
Ferrin Soap Manufacturing Company ---- 29
Garden Farm Dairy ---- 31
Glockner Sanatorium ---- 13
Gore, Chas. T. ---- 34
Gray and Palmer ---- 18
Hagberg's Convalescent Home ---- 19
Home for Convalescents ---- 17
House Beautiful ---- 17
Hynson, Westcott & Dunning ---- 24
Insulating Products Company ---- 29
Jones, William ---- 38
Knox Gelatine ---- 21
Kraft Engraving Company ---- 38
Lederle Laboratories ---- 21
Lilly, Eli & Company ---- 8
Lilly, Eli & Co. Insert ---- Between 4 and 5
Lorton, Howard, Inc. ---- 31
Manitou Mineral Water Company ---- 28
Matchett, Mrs. Carolyn ---- 18
McClelland Home ---- 17
Mead, Johnson & Company ---- 6
Meeker Home ---- 17
Merck and Company ---- 38
Meyer, Henry ---- 36
Miles & Dryer Printing Company ---- 33
Oderine Distributing Company ---- 18
Oklahoma City Clinical Society ---- 9
Old Homestead Bread Company ---- 27
Otto's Bakery ---- 4
Park Floral Company ---- 30
Parke, Davis & Company ---- 3
Pfister, Mrs. J. M. Blinn ---- 36
Porter Sanitarium ---- 11
Prescription Pharmacists ---- 39
Republic Orthopedic Shoe Store ---- Cover 3
Robinson Clinic ---- 16
Roche Ambulance Service ---- 33
Rowlands, Ann ---- 19
Sachs-Lawlor ---- 19
Sanitary Specialties Co. ---- 25
Seeleman-Ehret Photo-Engraving ---- 34
St. Francis Sanitarium ---- 16
St. Joseph's Hospital ---- 15
St. Luke's Hospital ---- 14
Shirley Garage ---- 30
Shirley-Savoy Hotel ---- 9
Snyder Laboratories ---- 19
Spencer Corsets ---- 25
Squibb and Sons ---- 1
Stanley Hotel ---- Cover 1
Stephenson, E. F. ---- 35
Stilphen Engineering Co. ---- 28
Storm, Katherine L., M.D. ---- 26
Taylor, Charles B. E. ---- 23
Therapeutic Bath Institute ---- 24
Trowbridge Training School ---- 20
Tulane University ---- 30
Union Mattress and Pillow Company ---- 39
United States Fidelity & Guaranty Co. ---- 33
Wantads ---- 39
Western Flying Service ---- 11
Western Messenger Service ---- 35
Western Newspaper Union ---- 20
White Flushing Valve Co. ---- 26
Windsor Farm Dairy ---- 37
Woodcroft Hospital ---- 12
Worrell's Rest Home ---- 19
Yeast-A-Bran ---- 33



. . . NOW . . .

DOCTORS

May Send or Bring Their Patients to a

PRESCRIPTION SHOE STORE

Where They May Rest Assured the Patient Will Be Fitted Comfortably by Men Who Know How to Fit Hard-to-Fit Feet

EXCLUSIVE LOCAL DEALERS:

MENIHAN "ARCH-AID" SHOES

FOR WOMEN

They gently support the arch. Snug fitting heels, roomy toes.

Thompson Bros'. Special Combination Arch Shoes for Men

Shoes and appliances fitted scientifically on prescription.

Doctors and Nurses invited to visit this new store. Conveniently located.

Dyke Lollar *A. C. Haaker*

REPUBLIC ORTHOPEDIC SHOE CO.

MAin 6024

335 16th ST. STREET FLOOR, REPUBLIC BLDG.

Denver, Colo.

Communicable Disease Chart



Quarter actual size

Devised by Dr. J. L. Pomeroy, Los Angeles County Health Officer. Gives, at a glance, data on diagnosis, incubation period, control etc.

We will be glad to send one free of charge to interested members of the medical profession

•

The CUTTER Laboratory
Established 1897
Berkeley, California

CORRECTIVE FOOTFITTERS

44 South Broadway — Phone Spruce 5276
Denver, Colorado

Corrective shoes with double arch supports for the entire family, fitted by expert and experienced foot fitters from an orthopedic standpoint and according to the type of shoe best adapted to each foot. Eliminate your foot troubles by wearing shoes fitted correctly and scientifically. We co-operate with the medical profession through our licensed chiropodists and trained shoe-fitters, as 90 per cent of our fittings are with people having foot ailments.

Special lasts made for abnormal feet. X-ray service at our Denver store. Write us directly for catalogue and details for ordering by mail or for interview with our traveling representative when in your territory. Mail orders given special attention.

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 10 OCTOBER, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

N.Y. ACADEMY OF MEDICINE
OCT - 4 1932
LIBRARY

TABLE OF CONTENTS

Editorials
Gerald B. Webb 390
Our Sixty-second Annual Meeting 390
Cooperation with University Faculties—A Reply 392
Thoughts on Sickness Insurance 392

Original Articles
Presidential Address, Public Health and the Medical Profession. Frank B. Stephenson 393
Habit Forming Drugs. Edward Jackson 398
Acrodynia. J. D. Geissinger 400
Septicemia in Children. M. M. Ginsburg 406

Public Health Notes 411

Library Notes, Book Reviews 413

Medical Biography 414

Secretarial Notes and Comment
New Officers for 1932-1933 415
Attendance at Estes Park 415
Exhibit Awards at Estes Park 415
Prepare Now for Legislative Work 416
Medical Societies 416
Woman's Auxiliary 417
News Notes 417
Officers, Committees, Secretaries 418

Wyoming Section
Editorials
The Next Legislature 419
Gonorrhea Ophthalmia in the Adult 419
A New Symptom of Diaphragmatic Hernia of the Stomach 420
News Notes 420
Original Articles
Surgical Tragedies, S. D. Van Meter 421

Hospital Section
Original Article
Group Nursing. Elizabeth Harris ..... Ten
Erratum ..... Twenty-four

Immateria Medica ..... Thirty-two

MOUNT AIRY SANITARIUM

is conducted for the diagnosis and treatment of nervous and mental illnesses and for the residential care of patients afflicted with these disorders in chronic form. Cases of alcoholism and drug addiction received for treatment.

MEDICAL SUPERINTENDENT
J. P. Hilton, M.D.

MEDICAL DIRECTOR
C. S. Bluemel, M.D.

CONSULTING STAFF
Glaister H. Ashley, M.D.
Edward Delehanty, M.D.
Franklin G. Ebaugh, M.D.
Howell T. Pershing, M.D.
Leo V. Tepley, M.D.
Philip Work, M.D.

1205 CLERMONT ST., DENVER

TELEPHONE: YOrk 0849

You Can't Get Water From a Dry Well

Unless You Dig Deeper

The old accounts on your books are as a dry well. The older they become the more the well fills up with the rubbish of time—neglect, excuses, bankruptcy, disputes and whereabouts unknown, making it harder digging.

Why Not Start Digging Now?

Send Us Those Slow Accounts Today. Why Wait?

20 Years' Experience

Collecting Professional Accounts

"Approved by Your Medical Society"

THE OLD RELIABLE SERVICE

Credit Ratings — Bonded

Fees as Low as 20 per Cent

Quicker Service — Greater Results

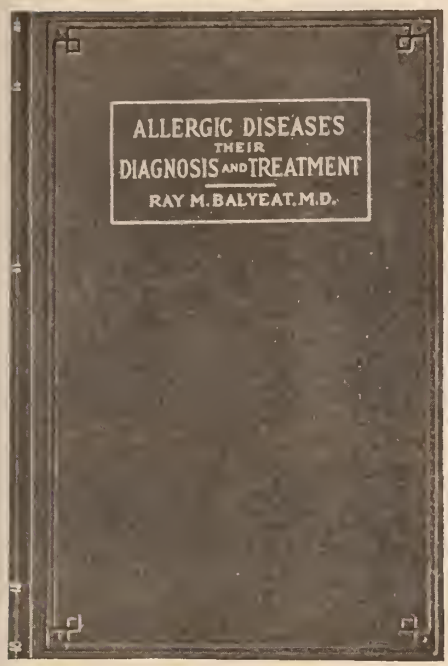
The American Medical and Dental Association

Credit Men for the Medical and Dental Professions

700 Central Savings Bank Bldg. — Phone TAbor 2331

DENVER, COLORADO

NEW (THIRD) REVISED AND ENLARGED EDITION



Balyeat's Allergic Diseases

THEIR DIAGNOSIS AND TREATMENT

A Practical Treatise on Allergic Diseases—Asthma, Seasonal Hay Fever, Perennial Hay Fever, Migraine, Urticaria, and Certain Forms of Eczema and Chronic Colitis.

By RAY M. BALYEAT, M.A., M.D., F.A.C.P.

Associate Professor of Medicine and Lecturer on Allergic Diseases, University of Oklahoma Medical School; Director of Balyeat Hay Fever and Asthma Clinic, Oklahoma City, Okla.

Three hundred and ninety-five pages, 6x9, illustrated with 87 engravings, line drawings and charts, and four colored plates. Third Revised and Enlarged Edition. Price, cloth binding, $5.00.

Prepared primarily for the practitioner and the student of medicine, the fundamental principles of allergy are fully discussed. Detailed methods for determining the cause of hay fever and asthma, and the practical application of the preventive, palliative and curative measures, are clearly given. It is profusely illustrated, which makes it easily understood by one who is not a specialist.

THE MOST IMPORTANT FEATURES of the new edition are the eight new chapters on disease other than hay fever and asthma, due to allergy, namely, migraine, urticarcia, and certain forms of eczema and colitis — syndromes that have long perplexed the medical profession. In these chapters will be found much practical information concerning their diagnosis and treatment.

About 15 PER CENT of the population of the United States sometime in life suffer from some form of allergy. The methods of diagnosis and treatment of allergic diseases are poorly understood by the average physician.

This book offers the physician a guide to the practical methods of their diagnosis and management. The material is arranged primarily to make available to the general practitioner the approved diagnostic and therapeutic procedures dealing with allergic diseases. It is the work of an experienced teacher and a pioneer in the study and treatment of diseases due to allergy.

Tear Off and Mail Coupon

F. A. DAVIS CO., Medical Publishers, Philadelphia, Pa.

You may send me a copy of the new third edition of Balyeat's ALLERGIC DISEASES. Price $5.00.

Name ..... Address .....

Nurses Insist on Good Shoes



Shoes that are comfortable, perfectly fitted, and, of course, trim, which probably accounts for the constant demand for the "Maray," shown above. It has been designed particularly for nurses, and is carried in White Kid, Black Kid, Brown Kid.

MENIHAN ARCH-AID SHOES

Gently Support the Arch

Doctors are invited to send or bring their patients to this store.

REPUBLIC ORTHOPEDIC SHOE CO.

335 SIXTEENTH STREET

Dyke Lollar DENVER, COLORADO *A. C. Haaker*

MAin 6024

REPUBLIC BLDG., STREET FLOOR

The General Use of ORANGE TANG Is Becoming Well Established in

HOSPITALS AND SANITARIUMS

There's a Reason for It!

ORANGE TANG

is made from orange juice concentrated and dehydrated.

It has the fresh, delicate, piquant flavor of the original orange and the natural mineral contents.

Have you tried ORANGE TANG TABLE SYRUP? It is delightful. For people who are particular and ones who like syrup but syrup does not like them—here's an innovation.

Samples Supplied on Request

COLONIAL FOOD PRODUCTS COMPANY

814 TWELFTH STREET DENVER MAin 9129



PARKE-DAVIS HALIVER OIL

with Viosterol-250 D

Accepted for N.N.R. by Council on Pharmacy and Chemistry of the A.M.A.

Derived from halibut liver oil; standardized to contain 60 times as much Vitamin A as high-grade cod-liver oil testing 500 U. S. P. units per gram, and with its Vitamin D content adjusted to equal that of Viosterol.

1 MINIM EQUALS ONE TEASPOONFUL OF COD-LIVER OIL

Parke-Davis Haliver Oil with Viosterol-250 D is supplied in boxes of twenty-five 3-minim capsules and in 5-cc. and 50-cc. vials, with dropper. The dose is so small that little or no difficulty is experienced in administration. Adults appreciate the convenience of the soft, easily-swallowed 3-minim capsules; and in the case of infants and children the entire daily dose—a few drops—may be given advantageously at one time.

HIGH CONCENTRATION - THERAPEUTIC DEPENDABILITY - MAXIMUM CONVENIENCE



THE OLD HOMESTEAD BREAD CO.

offers for your approval

The Formula of

KELPIN
Whole Wheat Bread

26	%	Montana W. W. Flour
26	%	Kansas Patent Flour
26	%	Water (filtered)
5	%	Powdered Milk
5	%	Cerelose
2	%	Salt
4	%	Shortening
1½	%	Diastatic Malt
½	%	Kelpin*
2	%	Honey
2	%	Yeast
100	%	

*Our Kelpin Has a Vegetable Iodine content of .11 per cent.

It is rich in iodides

It is rich in food value

It is well baked and sold fresh

WALGREEN COMPANY

The Doctors' Druggists

METROPOLITAN BLDG.

KEystone 2301

DENVER

Our outstanding prescription department, our complete stock of pharmaceuticals approved by the A.M.A., and our prompt messenger service are the best evidence of our desire to co-operate with the ethical medical profession. Suggestions from physicians are always welcome.

—Walgreen Dependability Always Maintained—

OCTOBER--*PROTECT AGAINST RICKETS NOW!*

Three level tablespoonsful of Dryco in four ounces of water, seven times a day, protects an eight pound baby from rickets, because:

—Dryco is irradiated and contains the necessary protective amount of Vitamin D.

—Mothers do not forget to give babies their feedings, though they easily might neglect to give them an added antirachitic agent.

—Dryco is easily digested and assimilated.

PRESCRIBE

ACCEPTED American Medical Assn. Committee on Foods

DRYCO

Made from superior quality milk from which part of the butterfat has been removed, irradiated by the ultraviolet ray, under license by the Wisconsin Alumni Research Foundation (U. S. Patent No. 1,680,818) and then dried by the "Just" Roller Process.

Send for feeding schedules and directions.

THE DRY MILK CO., INC., DEPT. C,
205 East 42nd St., New York, N. Y.

ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED

COUPON

Please send special reprints: Dryco—The Irradiated Milk; How to Use Dryco; Irradiated Milk in the Treatment of Rickets; and Irradiated Milk—The New Rickets Therapy.

"If one wishes to fortify cod liver oil, it is far more reasonable and efficacious to increase its potency by adding a small amount of viosterol, which is a specific in the prevention and cure of rickets, as it brings about calcification not only of the bone but of the proliferating cartilage as well." (*Hess, Alfred F.*, Am. J. Dis. Child. 41:1081; May, 1931.)

MEAD'S 10 D Cod Liver Oil with Viosterol is the choice of many discriminating physicians because it represents the long pioneer experience of Mead Johnson & Company in the fields of *both* cod liver oil *and* viosterol.

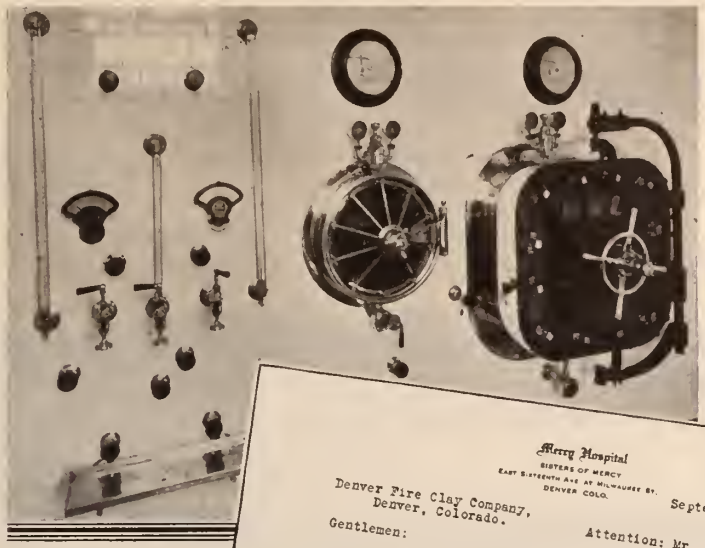
Mead's 10 D Cod Liver Oil is the only brand that combines *all* of the following features:

1. Council-accepted. 2. Made of Newfoundland oil (reported by Profs. Drummond and Hilditch to be higher in vitamins A and D than Norwegian, Scottish and Icelandic oils). 3. Supplied in brown bottles and light-proof cartons (these authorities have also demonstrated that vitamin A deteriorates rapidly when stored in white bottles).

In addition, Mead's 10 D Cod Liver Oil is ethically marketed without public advertising or dosage directions or clinical information. With Mead's,—*you* control the progress of the case.

Mead's 10 D Cod Liver Oil is therefore worthy of your personal and unfailing specification. This product is supplied in 3-oz. and 16-oz. brown bottles and light-proof cartons. The patient appreciates the economy of the large size.

Mead Johnson & Company Pioneers in Vitamin Research **Evansville, Indiana, U.S.A.**



18
Sterilizers

10
Lamp Units

Mercy Hospital
SISTERS OF MERCY
EAST SIXTEENTH AVE. AT MILWAUKEE ST.
DENVER COLO.

September 5, 1932.

Denver Fire Clay Company,
Denver, Colorado.

Attention: Mr. Johnson.

Gentlemen:

We take this opportunity of expressing to you our complete satisfaction with the sterilizers and lights which you recently furnished for our Surgery Department in the "New Annex" to Mercy Hospital.

They are receiving very favorable comment not only from the members of our staff, but also from the numerous visitors interested in this new achievement in the progress of modern hospitalization.

Your efficient service in connection with their installation is also greatly appreciated, as no detail has been overlooked.

Yours very truly,

SISTERS OF MERCY.

BY Sister Mary Anthony
Superior. R.S.M.

MERCY HOSPITAL

First installs, then uses, then praises . . .

DFC installed a total of 18 American Sterilizers, consisting of dressing sterilizers, pressure-instrument sterilizers, water sterilizers, instrument sterilizers, and bedpan washer and sterilizers.

Ten American Surgical Lamps were installed, making this one of the best lighted surgeries in the West.

Bacteriological Department

THE DENVER FIRE CLAY COMPANY

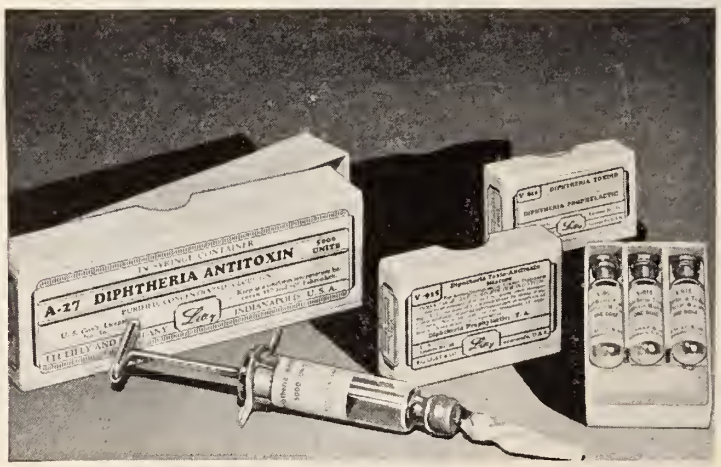
DENVER DFC COLO. U.S.A.

BRANCHES AT SALT LAKE CITY, EL PASO, AND NEW YORK

ELI LILLY AND COMPANY

FOUNDED 1876

Makers of Medicinal Products for Use Exclusively Under Professional Direction



A half century ago more than fifty percent of the diphtheria cases terminated in death. With Diphtheria Antitoxin, Lilly, for treatment and for passive immunization, and Diphtheria Toxoid, Lilly, and Toxin-Antitoxin Mixture, Lilly, for active immunization, every physician has at hand efficient weapons against the disease.

Prompt Attention Given to Physicians' Inquiries

Address Principal Offices and Laboratories, Indianapolis

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: C. F. Kemper, M.D., *Chairman*, C. S. Bluemel, M.D., W. H. Crisp, M.D.

VOL. 29 NUMBER 10 OCTOBER, 1932

$2.50 PER YEAR
Single Copy 25 Cents



GERALD BERTRAM WEBB
President-elect, Colorado State Medical Society

Gerald B. Webb

THE COLORADO STATE MEDICAL SOCIETY is fortunate in having as its President-elect one who is honored and well-beloved not only in his own community, and in our particular world of the Rocky Mountain States, but in the great world as well. Dr. Gerald B. Webb is an internist of deep insight and a medical scientist of vital concept and patient research. He is also a man of wide and varied humanity in the fullest sense, a cosmopolite, a lover of classical culture, mens sana in sano corpore.

Dr. Webb was born in Cheltenham, England. His medical education, begun at Guy's Hospital in London, was continued at the University of Denver where he received his degree in 1896. Further studies in Vienna and London strengthened the fundamental belief that education is a life-time work and joy.

Established in the practice of medicine in Colorado Springs, Dr. Webb, always an enthusiastic naturalist, gave much time and energy to biological research, especially in tuberculosis. He established an experimental laboratory, first in his own house, later in connection with his offices, inspired his associates, and did stimulating pioneer work of permanent value on the morphology of the blood at high altitudes, the blood picture—especially the prognostic importance of the lymphocyte count—in tuberculosis, the production of relative immunity to tuberculosis by very gradually increasing small doses of living tubercle bacilli, the Arneth count, later extended in scope and usefulness by Schilling, the production of chronic experimental tuberculosis by various means, the distribution of experimental tuberculosis, especially in the lymphatic system, and many other subjects. Through the cooperation of a host of patients and other friends, these research activities have been organized as the Colorado Foundation for Research in Tuberculosis, with an independent laboratory.

To the strictly experimental studies has been added a valuable increment of clinical research, covering a number of points in physical examination, and above all emphasizing the supreme importance of *rest in tuberculosis* (the italics are justified), with the special technic of postural rest.

Dr. Webb is a past president of the National Tuberculosis Association and the American Clinical and Climatological Association, a member of the American College of Physicians, the American Association for Thoracic Surgery, and a corresponding member of the Tuberculosis Society of Scotland. He was delegate of the National Tuberculosis Association to the International Congress on Tuberculosis at Rome in 1912, to the International Union against Tuberculosis in Paris, 1920, in London, 1921, and United States delegate to the Laennec Centenary in Paris, 1926. As Lieutenant-Colonel in the Medical Corps of the United States Army he was Senior Consultant in Tuberculosis to the American Expeditionary Force, 1918-1919.

Breadth of taste and interest are exemplified in a wide knowledge of medical history, with something of the bibliophile's passion, and a love of literature, of conversation, and of sport, which led to friendship with President Theodore Roosevelt and pleasant memories of hunting and camping with him in the Colorado Rockies.

Always a source of enthusiasm, courage, and strength to his colleagues, Dr. Webb is a very happy and timely choice for president of our Society. C. T. R.

Our Sixty-second Annual Meeting

THE SESSION at Estes Park may be reviewed as one of remarkable success, unique in many ways. Attendance was naturally smaller than when more centrally located, but was the largest ever registered at a northern Colorado meeting. Members carried on less commuting between home and Estes Park, thus giving an attendance more permanent and apparently larger than the number of registrations would indicate. Hotel facilities were taxed beyond expectation, but comfortably accommodated approximately 500 guests; this number was

composed of 294 members, seven guests, thirty-nine visitors, thirty-four exhibitors, and over a hundred ladies. It is interesting here to note that active membership has decreased only about 4 per cent, but its proportion to the number of registered physicians in Colorado has remained the same as in more prosperous years. Furthermore, interest in medical science remains unimpaired.

The general program met with universal satisfaction. Forty-two instead of the usual twenty-five papers were presented; mornings without discussions and an extra half day made this possible. The guest speakers, including Dr. Edward H. Cary, President of the American Medical Association, and four other noted men sponsored each by the society representing his specialty in Colorado, met with unqualified approval. Our readers may anticipate with pleasure the publication of these talks, among the others, in succeeding issues of this journal. Comment has not yet ceased upon the two papers on medical economics presented at the evening meeting jointly with members of our Woman's Auxiliary. The intense interest, and the hour and a half of discussion which followed, indicate the profession's intelligent concern with this phase of medical practice. Notable also was the fact that Dr. Cary's banquet speech followed similar lines.

The work of the House of Delegates was too voluminous and important to be given adequate editorial comment at once. All officers' reports in the Handbook were adopted; all committee reports were adopted except the recommendation for increased library appropriations and the Medical Economics report, which was tabled as being "inopportune." Especially apropos at this time is the Executive Secretary's plea, on behalf of the Society, the retiring and the new Public Policy Committee, that every member give his personal aid throughout the election campaign and the legislative session, that the profession may more successfully meet the challenges of vicious legislation promoted by the cultists and protagonists of movements opposed to public health. Presidents and secretaries of the county societies, as the key men in the organization. are urged to coordinate and perfect our activities in resisting these attacks more effectively. Two constitutional amendments were presented, upon which final action will be taken next year. One would increase the number of Councillor districts from five to nine to ease the Councillors' work and facilitate organization activities. The other, designed to utilize the judgment and experience of our past presidents, would pave the way for a By-law section creating a Society of Past Presidents that would elect three of its own number to the House of Delegates. Other work of the House will be given editorial comment in subsequent issues. Readers are referred to the Secretarial Notes for a complete report upon new officers elected.

The exhibits commanded the attention of a constant stream of interested observers. They were of three types: general scientific, x-ray, and commercial. Each group was slightly smaller in volume than that of last year, but their quality was well above average; the doctors appreciated the close attention to details which made them attractive.

The Woman's Auxiliary enjoyed a varied program, combining pleasure with business. Golf, riding, sight-seeing, and bridge added to an already busy program. Our State Auxiliary, ever thoughtful of the physicians' welfare, has proposed the establishment of a Benevolence Fund for the assistance of aged or indigent physicians and their families. Surely there is wisdom in this plan for reverting a portion of our own funds back toward the aid of those distressed after lives of altruistic service. The Board of Trustees has already approved this plan as presented by Auxiliary officers.

The annual banquet in the huge dining room of the Stanley Hotel, a delightful occasion, was followed by a dance in the hotel's casino.

Many doctors and their families chose to return home by way of the new road to Grand Lake, unquestionably one of the most remarkable automobile highways in America. The Society will undoubtedly elect a mountain meeting at least once in every few years.

The next session will be held in Colorado Springs—always popular.

Cooperation With University Faculties—A Reply

THERE has been comment upon the editorial of last month relative to physicians' certificates of illness being unwarranted in many instances of students' absence from classes. Since the faculty at our State University "cannot tell whether excuses are really valid," a rule has been established by the faculty refusing to consider excuses for "cuts" from classes, no matter what the cause.

Attention is directed to the fact that the majority of people, and certainly our college students, are honest. We have observed that many are also conscientious about class attendance to the point of danger—attending classes while suffering the fever and malaise of an acute illness. Every physician has been called upon to demand the confinement and proper care of students under these conditions. The faculty seems to disregard the danger of this rule. It will increase the incidence of students forcing themselves to classes and examinations when physically unable; it will encourage reticence in the face of infectious and contagious conditions; class-mates will be exposed to infection; the individual will be subject to the cardiac, renal, arthritic, and other complications of certain illnesses.

Suspicion not infrequently engenders falsification in the suspected; lack of confidence in our students will not tend to strengthen their moral fiber. Intimidation will not cram real education into the minds of students. After all, without the will to learn and thirst for knowledge being instilled into a student, his education has failed. An occasional "cut," particularly in cases of illness, will not impair the end result in the individual who is worth educating.

Suggestion is made that our faculties inspire their students with examples of honest confidence, increase efforts to enhance their desire to know, and thus minimize the incidence of unnecessary "cuts."

Thoughts on Sickness Insurance

THE PREVALENCE of economic stress often adds impetus to mass and government action which under normal conditions would only smolder and pass away. This fact obviously obtains in reference to the sickness insurance problem. Bills proposing sickness insurance are placed before state legislatures; hospital-saving funds are offered the populace; mutual benefit associations operated by laymen for laymen's profit are increasing. Current publications are flooded with articles advocating a broader distribution of medical care.

Granting the potential possibilities of some plan of sickness insurance being thrust upon us, it might benefit economically the medical profession if our profession offers a plan acceptable to its own members. We must show our readiness to control it, else corporations and politics will do it for us. If a service of the highest standards is made available to blend with these movements, cities and counties will be willing to pay for it. Facts reveal that medical men as a whole receive less remuneration than any other group of similarly trained men on earth. This will be recognized as good and adequate medical service is made available to the vast majority of the people.

It seems that no solution so far proposed is acceptable to the medical profession. Then it must provide a superior substitute. In so doing, there will be no excuse for falling into the errors made in other countries. So says Dr. Nathan Sinai, whose observations abroad have become familiar to us, Dr. Sinai also predicts that an educational campaign in behalf of sickness insurance might bring forth many applications from the people. Simons and Sinai claim that any voluntary system would soon be followed by a compulsory plan. Eventually, also, it might be taken over by the government. Again, may we trust that the medical profession will formulate and carry on the plan.

The above will come about, says Dr. Morris Fishbein, if the people cannot be educated to save for sickness as they now save for luxuries or in anticipation of death.

(Continued on Page 24, Advertising Section)

PUBLIC HEALTH AND THE MEDICAL PROFESSION*

FRANK B. STEPHENSON, M.D.
DENVER

Under modern forms of government, when any activity, worthy or unworthy, deals with or affects the welfare of society at large it becomes of legitimate concern to the state. The promotion of public health is one such activity in which the government engages on its own account. In this country it encounters certain limitations set by those inalienable rights of the individual which are recognized in our constitution. As in many other governmental undertakings, troublesome, but not insolvable questions arise as between state regulations, individual rights, and group prerogatives, the group in this instance being the private practitioners of medicine. A brief discussion of the interests and relations of these three is desirable, to provide data by which to accomplish the purposes of this address, which are to estimate the efficiency and evaluate the activities of the state health administration of Colorado, and to determine whether the medical profession is maintaining its proper relations with it.

Public health procedures are in general preventive and prophylactic and are essentially the old ones of sanitation, quarantine, and immunization, along with the newer and more important one of education of the people in health matters. The bounds of mass procedure should be overstepped to reach the individual only when his conduct or condition is a menace to society. It should be clearly understood in that connection that the establishment or operation of ordinary clinics and hospitals for the poor is not a part of public health procedure in the sense of benefiting the health of society at large. It is an economic project, not dealing with general public health; it is a part of the community's provision for its indigent as individual charges.

How much shall the individual submit to in the way of governmental control? And, what obligation shall the citizen justly assume in his contribution of funds to effect that control? Probably the common thought of the people must be the guide. When private resentment against the government for the exercise of some one or another of its activities becomes sufficiently widespread to represent the common thought, those activities are probably improper and their provisions almost surely unenforceable. We know that there is no common thought adverse to the Harrison narcotic law. The common thought on the Eighteenth amendment to our constitution has not been definite in the past. Common thought approves the regulation of automobile traffic. Common thought probably does not approve control of the morals or health of an individual so long as any ill effects are confined to himself, except as applied to childhood.

At present the United States Public Health service and some state boards of health recognize the principle that their sphere of activity lies in preventive medicine and approve the generalization that curative medicine as a public health measure is unfair to the taxpayer, except for the indigent ones who must be treated for the public's safety. It would seem that immunization against communicable diseases should be in the same category and that a just plan would be to require immunization, but spare expense to the public by limiting free service to the poor. Citizens are required to keep their automobile brakes in good condition, at their own expense, as a safeguard to the public. They might well prevent themselves and their families from being a health menace to others at their own expense. It is questionable if it is fair to the public for the government, whether national, state, county or city, to establish and maintain with the people's funds free clinics or hospitals for treatment of disease, whether communicable or not, whether venereal, tuberculous or any other, in which treatment is offered or given to those who are able to pay for such service. I am fully aware that there are good grounds for argument against

*Presidential address delivered before the Sixty-second Annual Session of the Colorado State Medical Society, Estes Park, Sept. 8, 1932.

this stand, based on difficulties of control, and of assurance of adequate treatment for the patient. That assurance, however, might be secured in other ways. For instance, by designation of an approved list of the reputable practitioners of medicine available, to whom the patients could be referred; or, medical organizations could maintain pay clinics for such cases, and thus cooperate with the health department of the state. Either of these recourses would gain a further end in lessening friction between public and private practice. As a citizen, at least, I resent being taxed to cure my neighbor of a communicable disease. He should be forced to secure treatment, and I will willingly pay my part toward the police power, but reluctantly toward the cure.

There are peculiarities in the art and personal relations of private medical practice which impose certain limitations upon public practice in addition to those set by the rights of the taxpayer and the rights of the individual who is to be practiced upon or restrained. Thus the normal province of the practicing physician becomes a consideration of some moment. A little thought makes it plain that these two forms of practice are so interrelated and that their fields so overlap and interdigitate that there is no sharp dividing line. Certain phases of preventive medicine have to do with the individual patient and are in the field of private practice; other aspects of prevention and, in times of stress, perhaps, curative medicine, are better performed through mass measures under police power. Public health administration, however, is founded on medicine; was developed by medical men; must be carried out largely by medical men; relies upon the practitioner's performance for its success; and owes most, if not all, of its large, spectacular accomplishments to leaders who were illustrious medical men and many of whose names will endure forever in the history of medicine. Public health care is simply a specialized form of medical practice, as is surgery or any other specialty. The interrelation of the duties of private practice with public practice is as close as that of internal medicine with other forms of practice. In handling their individual cases, doctors must abide by public health rules; must follow out prescribed provisions alike in treatment, prevention, and clerical duties. In return they have the support of the state organization in the enforcement of preventive measures which they generally have felt to be embraced in their private duty to the public. There should, therefore, not only be no unadjustable conflict between private practice and public practice, but, on the contrary, there is every reason that the two should go hand in hand in a common cause; and if controversies at which I have hinted do arise, they should be settled within the ranks of a united profession, in which public health service properly belongs.

In a recent communication from the Surgeon General of the United States Public Health Service, he unequivocally expresses his desire for amicable cooperation between that Service and the American Medical Association. He says also, in referring to general immunization, medical examination of school children, and treatment of venereal disease among the indigent:

> However, the extent to which the health department should engage in such activities is a matter which should always be worked out jointly by the local health department and the county or city medical society.

It would appear from these two statements that the United States Public Health Service sanctions cooperation between itself and the practicing profession and recognizes certain privileges of the profession in relation to the conduct of that service.

Let us assume it established then, that individuals have inalienable rights upon which the government ought not to infringe; that there are fixed and just limits to the obligation of the taxpayer; that the medical profession is concerned with public health administration as a matter of fundamental principle; that the two fields of service are closely allied and interrelated; that they are both parts of one single and whole medical practice; that each has duties to perform toward the other, necessitating friendly cooperation; and that without that cooperation both public health and private practice will suffer. With these conclusions in mind, we

are in a better position to study our local profession and our state department of health.

The constitution of the American Medical Association, Article II, reads as follows:

> The objects of the Association are to promote the science and art of medicine and the betterment of public health.

It is, therefore, incumbent upon each member of our organization to accept certain public health interests and responsibilities as a duty.

In respect to that duty, which physicians generally have acknowledged, it would seem that Colorado doctors do not differ in general from those in other states.

I have recently heard it deplored that doctors are not public health minded. This is hardly true as a generalization, though perhaps so in a certain sense. It is at least untrue that physicians are not in favor of public health. Do not physicians generally recognize and approve of preventive medicine? Is not our organization continually advocating and fostering preventive medicine to the extent of lessening professional income from curative practice? Would we not, as a class, willingly sacrifice our calling if all disease could be eradicated? Would you say a physician is not public health minded because he does not consistently busy himself with public health activities? No. He has the same attitude toward that medical specialty as he has toward the others. He has chosen to spend his efforts on a certain branch of practice and does not enter others. If he is an internist and his case becomes surgical, he leaves the surgery to one who is more competent than he in that specialty; likewise, with that other specialty, public health. His interest in phases of practice other than his own will be evinced in his allegiance to his medical organization and its committees. He cannot busy himself with all phases of medicine and be expert in all. But he should see to it that his representatives perform their work, and should do what he can to keep informed on public health matters.

In the personnel of the American Public Health Association and various other public health agencies, we find representatives of the nursing profession, the medical profession, the dental profession, and the laity, mixed in membership and officers. Perhaps we are not sufficiently active in these organizations, and our delinquency is more than one of citizenship, for there are opportunities there to fulfill the requirement of our constitution.

Every public health executive preferably should have had medical training and thus possess, along with his other qualifications, adequate insight into the practicing physician's status. Therefore, more young doctors should undertake the training for that specialty. If doctors are not public health minded to the extent of selecting public health as a specialty in larger numbers, it may be because that specialty is not made attractive to them or that they underestimate its importance. The reason in either event lies in their medical educational curriculum, and the fault is with the medical school. Other considerations which render the specialty unattractive are the connection with politics, the comparatively low remuneration, the uncertainty as to a life position and the restricted number of openings.

We should provide for our medical students curricula in public health which are proportional in scope to its importance; we should as individuals carry out the requirements of the state health department; we should as an organization lend it our aid when needed, maintain a critical and watchful attitude towards it and voice our approval or disapproval of it. We have that duty in a dual capacity as citizens and as physicians, in Colorado as elsewhere. Our failures in those respects should be remedied.

It is now a consistent further step to examine our state health administration. Is it functioning adequately? If not, what are its deficiencies, what are their causes, and what are the feasible measures for improvement? How can a situation be developed that will prevent retrograde trends, obviate future infirmities and provide new fields of endeavor?

In 1930, a survey of public health administration in Colorado was made by Surgeon

C. E. Waller, an appointee of the United States Public Health Service, who spent many weeks in what appears to have been a thorough, painstaking, and unprejudiced evaluation of all health agencies in the state. This report is published as supplement number 101 to the Public Health Reports. The findings with regard to the State Board of Health are in some respects commendatory, in others so derogatory as to require serious heed. The Denver Public Health Council also has made the Colorado State Health Department a major subject of criticism, and the papers offered at its meetings along with other records of that body, have contributed to our knowledge of certain deficiencies of the department. The present writer has spent some time in a review of these findings and a study of the subject. Some of the shortcomings suggested by these studies are in substance as follows:

1. Lack of interest and leadership in developing adequate health organization in cities, counties, or districts, and of close contact with local health officers.

2. No promotion of public health nursing.

3. No active check on local registrars and physicians as to reporting of births, deaths, and notifiable diseases. Notifiable disease reports shown to be very inaccurate by comparison with death reports.

4. No program for promotion of immunization.

5. No provision or distribution of biological products for the indigent.

6. No important work in education of the public in preventive measures.

7. The rural population of Colorado (50 per cent of the total population of the state) is benefited to a very limited extent from expenditure of funds for health purposes by the state.

8. No disposition to foster cooperation with the medical profession at large.

These are only some of the criticisms made. Several of them are vastly important. These delinquencies are reflected in the registration area statistics cited by Dr. Waller:

1. Colorado's death rate from all causes is higher than that for the national registration area and considerably higher than for the neighboring states of Kansas, Utah, Nebraska, and Wyoming.

2. Colorado's death rate from each disease in the category of preventable causes of death is higher than for the same disease in the registration area.

3. Colorado's infant mortality rate is exceedingly high, being 91.3 per thousand live births as against 68.0 for the registration area.

(It is noted that tuberculosis and foreign population factors have very little bearing on the inferiority of our statistical showing, for tabulation without them leaves the total death rate not materially improved; furthermore, other states have their own peculiar problems of disease and climate which do not exist in Colorado).

A number of causes contribute to this showing which puts Colorado among the hindmost of the states in public health accomplishment. Some of these are remediable; some are not. The causes mentioned are:

1. Too much local work by the state organization.

2. Insufficient funds.

3. Funds appropriated in such a way that one department suffers and another is overemphasized in importance while interchange of funds is not allowed.

4. Topographical, geographical, and seasonal conditions which impede communication by mail and by personal travel.

5. Sparsely populated counties and districts with low tax value.

6. Climatic conditions which attract invalids.

7. Defects in the enforcement laws.

8. A want of initiative in active lines of work, no live anticipation of public health menaces, and a general disposition to fall back upon routine procedures with limitation of effort to the older, although essential, police power practices, and failure to keep step with the newer developments in the science of public health promotion.

Two of the items of criticism are especially grave, and both are remediable:

First of these is the lack of initiative. This, however, cannot be entirely blamed

upon a personnel so hampered by financial difficulties and poor organizational structure. Yet it is believed that even with the existing machinery, much could be done that is not now being done. The dumping of a city's untreated sewage into a river with consequent contamination of farm vegetable products over large irrigated lands need not have gone on for years if effective measures had been adopted to stop it. If, without increase of authority, funds or personnel, that condition can be brought up by the Board of Health for correction, now, when an increase of typhoid fever becomes public knowledge, when criticism of the Board is rife, and, happily, just before election, it could have been done long ago.

The second grave fault is the neglect of education of the public in preventive health measures—the most significant and important function of all, one which is the foundation of growth and improvement in public health and in reduction of morbidity, the very cornerstone of a structural cooperation of the public with the health board.

Allan J. McLaughlin*, Medical Director, United States Public Health Service, referring to the broad division of public health service into police power activities and education, has said:

> The most striking thing in this evolution is the change in the relative importance of work done on these two basic functions.
>
> While police power activity has dwindled to a routine procedure with its minimum utilization, the importance of public health education has grown steadily as the more effective instrument and will grow much farther and faster in the future.

Go to the State Board of Health office and ask for directions for sanitation for your camp or your mountain cabin; the health department regrets it has no printed instructions it can give you. It does, however, delve into a collection of miscellaneous publications gathered elsewhere and luckily finds a pamphlet printed by our sister state, New Mexico, which it apologetically offers you. New Mexico, with a less densely populated area than Colorado, and with much less total wealth, gracefully serves her sister state. What campaign, other than in emergencies, has been put on to teach the public about epidemics? What steady routine instruction has been instituted? What radio talks, what newspaper articles? The newspapers would probably lend a willing ear to every-day pronouncements from the State Board of Health.

Granted, then, that the medical profession in Colorado should manifest greater interest in public health work, and that the state health laws need revision to adjust them to modern preventive principles and to create a more alert and efficient organization, I would suggest that the Colorado Medical Society undertake to stimulate its members to greater public health activity, and that an important step in that direction would be to urge and work towards improvement in Colorado's public health administration. In the proposal or advocacy of any plans for that improvement, it is suggested that observance of the following principles should be insisted upon:

Divorcement of administration from politics as far as is humanly possible.

Cooperation with all official and public health agencies such as the Child Welfare Bureau, public school health departments, the White House Conference, the Colorado Tuberculosis Association, and with approved unofficial agencies.

Cooperation with the United States Public Health Service and acceptance of its assistance.

Cooperation with the medical and dental professions.

Adoption of a reorganization plan which will not at present require additional public- expenditure, but will accomplish more with the amount of funds at present available, and which will at the same time permit of expansion as fully and as rapidly as public sentiment will approve.

Promotion of economy (1) by paying adequate salaries to all employees and requiring full, businesslike service therefor; (2) by avoiding overlapping services within the organization and with other public health agencies; and as far as actual demands of public health will allow, (3) by

*Public Health Reports, United States Public Health Service, September 25, 1931

discontinuing free service to all but the indigent or near-indigent.

Establishment of authoritative control over cities and communities, with respect to state regulations.

An apparent beginning already has been made. The Attorney General of Colorado has proposed to offer a new law to the incoming legislature. He has appointed a committee to help frame such a law, and the medical profession is represented on that committee. No meeting of the committee, however, has yet been called.

Finally, if a new organization is effected to meet their approval, there is every reason to expect active assistance, both in personnel and supervision, from the United States Public Health Service, and both financial and field assistance from the International Health Division of the Rockefeller Foundation, on request from the Governor of Colorado or the State Board of Health. Under the present regime, that assistance is withheld.

Let us increase our activities in public health, and pledge ourselves to cooperation with our state administration. Let us have a good public health organization, alert, active, but functioning with judgment and restraint, exercising sound but not senselessly rigid economy, free from politics, and holding due regard for the democratic theory of government under which we attempt to observe the rights of all citizens.

HABIT FORMING DRUGS*

EDWARD JACKSON, M.D.
DENVER

It is not the drugs that form habits, but the people who use them. However, certain characteristics of drug action favor habit formation. Life is a succession of reactions between external influences and internal forces, in which the vital processes are changed, for the time being and to some extent permanently. Most of these reactions are protective. The dead faint from hemorrhage checks the loss of blood, and from fear it simulates death—either of which may preserve life. The vomiting of irritant poisons such as arsenic, corrosive sublimate, or tobacco, or the slower gastro-intestinal irritation of methyl alcohol, may also limit the harm done by the toxic agent. The lesser reactions of life are innumerable and serve the same purposes. Those that are truly serviceable are repeated to meet recurring situations, become habits and, passed on by heredity, occasion the symptoms of disease or the healing processes that injury and disease provoke. For example, fever gives or helps immunity; sloughing and scar tissue repair a burn. All the manifestations of disease, that it is the business of the physician to restrain or guide to a favorable conclusion, belong to the class of vital reactions.

Drug habits are not essentially different from other habits. Every reaction that can be repeated until it has become a habit, must have been in some way beneficial, or at least not so harmful as to destroy life. Even those that may destroy life require the attention and study of the physician. He is first called for the emergencies that threaten to be fatal, and through his efforts to defeat these dangers he has learned to oppose and control less imminent dangers and to go forward from the control to the prevention of disease. By the skillful resort to their immediate effects, drugs are used to save life and make future health possible. This, however, is done by intelligent watchful care on the part of a physician—not by turning the case over to the blind faith of a devotee or by continuous use of the drug that has brought a temporary relief from pain.

Drug addiction may become as complete a disability, or as dangerous an emergency, as that for which the drug was first employed. The drug habit is not something external that can be resorted to or laid aside at will. It implies a profound and permanent alteration of vital processes, in

*Read before the Medical Society of the City and County of Denver, April 19, 1932.

which are mingled temporary energy, comfort and well-being, with lasting danger, lowered efficiency, and deterioration. The situation is one in which the patient cannot be left to the prompting of his own feelings, but, more than in most cases of disease and injury, he needs the broader view and experience of the physician to guide him out of the immediate and menacing situation into permanent, healthy activity of bodily processes. Few medical problems are so beset by difficulties arising from individual peculiarities, idiosyncrasies, and the slow and latent tendencies that characterize the effects of each particular drug.

The study of the widely varied effects, which a single drug may produce in the body, has been much neglected. It is more than fifty years since H. C. Wood published his Treatise on Therapeutics, with especial reference to the application of the physiologic action of drugs to clinical medicine. In that work he gave much consideration to those aspects of toxicology that are of interest to the physician. In his two-volume work on Therapeutics, Alfred Stille had emphasized the different actions of the same drug, both among early and late symptoms, and as modified by large or small doses. The less violent and delayed actions of drugs are still little studied and not generally understood. It took many years before we recognized the superior action of repeated one-tenth grain doses of calomel over the ten grain doses given over 150 years ago. The differences between acute poisoning or by minute doses continued over long periods have been pretty well established with regard to mercury, lead, arsenic, and antimony—drugs that have been widely used for centuries.

The story of how Noah planted a vineyard, drank of the wine and was found drunken, and how his sons covered his nakedness, seems to show that the acute effects of alcoholic indulgence were widely known at the time of the writing of Genesis. Recognition of the effects of opium dates back almost as far. The intoxicating product of hemp was known in China as early as 500 B. C., and its use spread to India, Persia, and Arabia. It has been the acute or extreme effects of poisoning that have been mostly observed, not late results or gradual developments of drug poisoning.

Modern medicine concerns itself more with the prevention of disease rather than with the struggle with its sequelae, with the limitation of its effects, and the prevention of death. To make it more widely useful, we must give attention to symptoms and conditions that heretofore have been thought of minor importance or ignored altogether. The minor incidental or secondary effects of drugs should be observed, studied, discussed, treated, and guarded against, as thoroughly as the effects of the diseases for which they are given. Although the early symptoms of alcohol poisoning were known in the time of Noah, the real understanding of such lesions as alcohol amblyopia have come in the last fifty years.

This is enormously important at this time, when new analgesics, anesthetics, and alleged specifics are being put forward every year under proprietary names and chiefly through the free literature issued by the manufacturers and salesmen whose interest in them is commercial. The claim is made for each of these that it will not form a drug habit and that it is free from the undesirable actions that have been experienced with all the drugs that have been used before to accomplish the same purpose. Chloral hydrate was put forward as the best—a safe hypnotic and analgesic—free from the drawbacks attending the use of narcotics. When continued experience failed to sustain these claims, the field was again open for the introduction of other superior proprietary remedies, many of which have now been tried, discarded, and forgotten, while some are still recalled by advertisements in the daily papers. These new miracle working drugs still come to us in a steady stream. Our chief protection from such false guides is what we have learned of such drugs in the past.

Habit comes not with the drug; it resides essentially in the body of the drug user and its response to the drug. With some drugs the greatest danger is in their primary ef

fects; it diminishes as the body through experience builds up defenses against them. With others the danger is perfectly insidious and increases with time and familiarity. Always the element of individual peculiarity, or idiosyncrasy, is of greatest importance. It accounts for the fatal results of a first dose of ordinary size, or for the defense of life that grows and remains effective throughout a long lifetime. Idiosyncrasy is individual. It determines the reaction of each particular person to each particular drug. It creates a body of facts, bearing on health, that each must learn from his own experience, because he will not encounter any other person who has had the exact experience.

There are other facts that are best learned from others, generally from parents or older associates. Among these are the reactions of drugs that vary with age. Tobacco is generally thought to be especially harmful to growing children. There is a good deal of evidence that this belief is well founded. However, in some respects tobacco becomes more harmful at and after middle life. Its influence on blood pressure then becomes more decided and sometimes dangerous. I have seen tobacco amblyopia only once or twice before thirty-five years of age and only rarely under fifty. Something of the same is true of alcohol amblyopia; before fifty, in my experience, the patients have always been using both tobacco and alcohol. Thus it was impossible to apportion exactly the blame between them.

Idiosyncrasies to diet are closely allied with those to drugs. Both need to be studied more generally and more systematically than they have been in the past. Our colleague Dr. Sewall has suggested a phase of medical history that is almost wholly neglected. This might be called medical autobiography, not for publication, but to assist the physician when called to a patient for the first time. Some patients have done helpful work in this direction. It was one of the important resources of the old-fashioned general practitioner, particularly the old country doctor, that he had accumulated a large amount of medical biography of his patients and their families. Learning of that kind must be increased and made more general if we are to learn more about diet, or about drug habits.

Since the studies of Wood and de Schweinitz on toxic amblyopias, there has been advance in the scientific knowledge of drug habits. But the older literature, particularly De Quincey's Confessions of an English Opium Eater, gives a point of view different from that of the physician, but important for arriving at a scientific understanding of drug habits.

At this time, when new drugs are multipled and prohibition is the most discussed subject in the newspapers and perplexing issue for the politician, a broad knowledge of drug habits and strong leadership on the part of the medical profession is greatly needed.

ACRODYNIA*

J. D. GEISSINGER, M.D.
PUEBLO

Since only the symptomatology and prognosis of this disease are universally agreed upon and all other phases, even including terminology, are in dispute, and because it is not sufficiently familiar to the profession in general to prevent cases being overlooked for considerable periods of time, I deem it of sufficient importance to review the subject and report another typical case.

The term "acrodynia" was first used by Chardon of France in 1830 when he applied it to a disease which occurred in epidemic form in that country, starting in 1827 and affecting, in a period of two or three years, about 50,000 people. It is questionable whether that disease and the one now being considered were the same. The former af-

*Read before the Pueblo County Medical Society on October 7, 1930.

fected mainly adults, was epidemic, and ran a course of about one month, while the latter affection attacks children (White[1] alone reporting two cases in adults), is sporadic, and runs a much longer course. Students of the French epidemic, particularly Petren of Sweden, as quoted by Bilderback[2] and the same year by Foerster[3], have thought its etiology to have been chronic arsenical poisoning, as arsenic was used as an insecticide in the vineyards of France. Known outbreaks of arsenical poisoning occurring in other countries have had very similar manifestations.

The first cases reported in this country and description of the disease as we know it here were by Bilderback[4] in January, 1920, under the title "A Group of Cases of Unknown Etiology and Diagnosis." Weston[5] reported these same cases at the American Medical Association meeting in 1920, calling them "acrodynia" because of their resemblance to the cases described in the French epidemic. Since then many articles have appeared by different authors, many suggesting different names for the condition and varying theories as to etiology. A few good pathological studies have been made.

While only recently recognized in this country, it has been known in Australia for thirty years or more, though the first authentic account was given by Swift in 1914 under the name of erythredema.

As stated, it has been written of under many titles: "acrodynia," most frequently, though it probably bears no relation to the original disease; "erythredema," though there is no actual pitting; "dermatopolyneuritis," indicating the structures involved; "pink disease," specifying the characteristic color of hands and feet; "juvenile acrodynia;" "neurosis of the vegetative nervous system;" "Swift's disease;" "Feer's disease;" "erythredema-polyneuritis." The latter and eythredema are probably the most descriptive, but it is most easily remembered and best known as acrodynia. This it will probably remain until definitely placed etiologically or its pathology determined.

The etiology is still unknown. Out of infection or a sequela of infection, deficiency disease, arsenical poisoning, allergy and neurosis of the vegetative nervous system, only the first two mentioned now hold any prominency. There are those that feel that the deficiency theory can be abandoned because of the fact that most of the children affected have been breast fed or on well-balanced diets. Perlman[6], however, thinks it is a quantitative and not a qualitative deficiency of vitamins. McClendon[7] also supports this theory and reports rapid recovery of a case under treatment with yeast and irradiated ergosterol. Royster[8], in Clinical Pediatrics, classifies it as a nutritional disturbance on the basis of Warthin's[9] pathological report of two cases which suggested either a food deficiency or a toxic state acting on persons of the hypoplastic constitution. He thinks it may be, as Byfield early suggested, an infantile form of pellagra. The preponderance of opinion still seems to favor infection as a precursor or associated factor and particularly infection of the upper respiratory tract. Definite proof, however, is lacking.

The specific pathology associated with the disease has also been difficult to determine, due to the favorable prognosis as to life and recovery, death rarely occurring from the disease itself but from associated affections. Some of the earlier pathological reports gave only the findings of associated diseases such as broncho-pneumonia or acute intussusception. Warthin[10], summarizing the pathology in two cases examined post mortem, found acute fibrinopurulent bronchopneumonia to be the cause of death in both cases. Both showed a gastro-enteritis, most marked in the duodenum. Both showed extreme edema of the brain and meninges. There was a proliferation of the meningeal and perivascular reticulo-endothelium. No degenerative changes were present in the nerve cells or fibers of the brain or cord. There was dilatation of the central canal of the cord in both cases. No inflammatory changes were found in the brain, cord, or nerve roots. No inflammatory or degenerative changes were found in the peripheral nerves in either case. No polyneuritis was present. Only a slight

reticulo-endothelial proliferation occurred around a few nerve trunks in the skin. The thyroid gland showed a slight increase in colloid in one but was normal in the other case. The thymus gland in both cases showed marked fibroid atrophy. The suprarenal glands showed marked hypoplasia of the medullary portions. Both cases presented the features of the hypoplastic lymphatic constitution. The skin showed marked hyperkeratosis and hyperplasia of the epidermis, slight pigmentation of the rete, marked capillary dilatation and hypertrophy, perivascular reticulo-endothelial proliferation, no inflammatory infiltration, no edema of the papillary layer or corium, marked hypertrophy and dilatation of the sweat glands.

Kernohan and Kennedy made a quite complete post mortem study of one case and reported it in August, 1928. They quote Byfield as having found, in a case complicated by tuberculosis, involvement of an occasional anterior horn cell of the spinal cord, gliosis about the central canal, and edema of the sensory roots, and Paterson and Greenfield as having found considerable myelin destruction in some fibers of the peripheral nerves, diffuse increase of small cells in the gray matter of the central nervous system, and cellular increase in nerve roots. They thought their cases definitely proved the disease to be a poly-neuritis, affecting particularly the peripheral parts of the nerve trunks. Their own case showed the brain and spinal cord to be normal upon gross examination. Microscopic examination showed no evidence of acute or chronic inflammation but did show a degenerative process which was limited to the basal nuclei, midbrain, medulla oblongata, gasserian ganglions, and some cells of the spinal cord, dorsal root ganglions, and peripheral nerves.

While there is considerable disagreement in the few pathological reports so far submitted, there is considerable evidence that the nervous system bears the brunt of the injury.

All who have observed this disease agree upon the symptomatology and all accounts are alike. Rhoda[12] classified the symptoms as (1) those general in nature: anorexia, loss of weight, and weakness, (2) those referable to the nervous system: hyperirritability, sleeplessness, paresthesia, anesthesia, loss of reflexes, paresis and photophobia. and (3) dermatologic symptoms: hyperhidrosis, miliaria, desquamation, erythema, swelling, cyanosis, coldness, alopecia, and ulceration of gums with loss of teeth. As in other affections, not all of these symptoms may be present in any one case, but enough are present to produce a picture, which, having once seen, we will always recognize again, nearly all writers referring to it as one of "abject misery."

The onset may be sudden or gradual. There is first noted a change in disposition; from a happy, playful, smiling child. we have a fretful, irritable, crying, sleepless child. The returning smile is often the first indication of returning health. The facial expression is one of worry, not of severe pain. Because of the frequent associated photophobia, the head is buried in the pillow or against the mother's breast. The burning, itching, and discomfort in the hands and feet results in their constantly being rubbed together or the fingers being thrust into the mouth, giving the mother the impression that the teeth are the disturbing factor or that the child has a sore throat. The insomnia is marked, and, in the case I am reporting, especially so at night. Occasionally drowsiness is present. Anorexia is a very prominent symptom, and secondary to this, a rapid loss of weight with marked weakness resultant to this and probably also the involvement of the nervous system. This often results in actual paresis and inability to walk, though pain in the feet may act as an inhibition too. In some cases the knee reflexes are lost and others normal or increased. Anesthesias and paresthesias are often present.

Soon the pathogonomic dermatological manifestations appear, the characteristic feature of which is a pink eruption of the hands and feet, most marked at the tips of the fingers and toes and the soles and lateral borders of the feet, gradually fading out at the wrists and ankles. Associated with this is swelling of these parts, but no pitting, cold,

clammy feeling and cyanotic appearance, reminding one of parts exposed to cold. Desquamation is soon noted. This eruption may also affect the ears, tip of nose, and cheeks. It may be intermittent, but when once established often persists until the termination of the disease. A generalized eruption that comes and goes and is miliary in type or maculo-papular usually accompanies the disease. Itching is often present with this. Profuse sweating is a striking feature and is as marked as in any other known affection. Deep ulcerations may occur on hands and feet, due to trauma or nerve involvement. The hair may fall out or be pulled out. Ulcerations of the mouth, stomatitis, loosening of the teeth and falling out of the teeth and even necrosis of the jaw bone have occurred. Frequently, associated upper respiratory affections are present.

The course of the disease is from several weeks to several months, with ultimate recovery taking place in the majority of cases, unless an intercurrent disease occurs. Recovery seems complete aside from destruction due to deep ulceration.

There are no characteristic laboratory findings to aid in diagnosis. However, this is not difficult, due to the characteristic picture presented in the symptomatology. The exanthems due to the acute infectious and contagious diseases are easily ruled out by the character of rash and associated symptoms, arsenical poisoning by history and examination of urine. Erythromelalgia occurs in adolescence and early adult life, often comes and goes, recurring for many years and does not present the other symptoms of acrodynia. Among the deficiency diseases, pellagra is the only one bearing any close resemblance, and here there are many points of likeness. However, pellagra is more localized in its incidence, is not limited to infancy and early childhood, the skin lesions are more sharply demarcated, it is often associated with mental symptoms, there is usually a severe enteritis, and it tends to recur.

Treatment may still be said to be symptomatic; maintaining nutrition is one of the most important phases and also one of the most difficult, due to the marked anorexia. Gavage should be resorted to, if necessary. Owing to the doubtful etiology and some favorable reports from high vitamin content in diet, this should be observed and yeast, vitavose, malt preparations, viosterol and cod liver oil given in addition to the regular food constituents. Ultraviolet therapy may be employed for the same purpose. Ordinary sedatives appear to give no relief. Cold calamine lotion frequently applied is the most helpful. Gentle rubbing of the extremities appears often to be soothing. More rapid improvement has been noted following removal of tonsils and adenoids. A change of environment accomplished by a motor trip seemed to be the turning point toward recovery in this case.

Case Report

J. R., aged 15 months, was the first and only child of young Italian parents, who were both living and well. Residence was on a farm in the Arkansas Valley. Birth history was normal; weight at birth six and one-half pounds; breast fed for one year. Orange juice was given at three months of age and continued until the present time. Cream of wheat was begun at nine months but not given regularly. At about this time, too, toast was given occasionally, and once in a while a cooky was given. She had no illness except colds until one year old. At that time she weighed seventeen pounds and twelve ounces, which was about one pound and twelve ounces under the average for her birth weight. The mother thought she had nursed the child about one and one-half months after she became pregnant again and attributed her present illness to that. About one week after she was weaned she developed a diarrhea and was taken to their family physician, whom the parents understood diagnosed paratyphoid, though no stool or blood examinations were made. The diarrhea cleared up in a few days and she seemed better. She was, however, kept off of food, except milk, diluted one-half with water, and orange juice for a period of three weeks. During this time she appeared very hungry. Then gelatine and zwieback were added and also cod liver oil. Her appetite seemed to fail then, and a tonic was given,

but with no improvement. She became very fussy, irritable, slept poorly, and cried a great deal, constantly put her hands in her mouth so the mother thought her teeth were bothering her and took her back to the doctor for this condition. Each time the gums were lanced, but without relief. She was then referred to an ear consultant who lanced both ear drums. There was no drainage, but she seemed a little quieter for a few days. The mother then noticed that the baby's mouth was sore, and the family physician was again consulted. He thought the mouth condition was not enough to account for her refusal to eat and her bad disposition, which he attributed to environment, so the parents stated, and advised hospitalization to correct this. The parents resented this, and the patient came under our care at this time.

The complaints were sore mouth, extreme irritability and sleeplessness, anorexia and loss of weight, slight fever and profuse sweating, particularly of the head during sleep.

Examination on November 16, 1929, showed a fairly well-developed but undernourished white child, weighing fifteen pounds and one ounce. Head and scalp, negative; no aural discharge. There was a stye on the upper lid of the right eye. Twelve teeth were present. The gums were swollen and ulcers were present. Throat, negative. Heart, lungs, abdomen, and extremities, negative. No eruptions. Temperature, 99.8° R. The diagnosis at this first visit was acute stomatitis and malnutrition. The treatment was dietary with high vitamin content, including yeast, vitavose, and cod liver oil. Potassium chlorate was given in small doses and calcium lactate twenty grains a day. A local application of boro-glyceride was prescribed. When seen four days later, the stomatitis had practically cleared up, but there was no improvement in her general condition. Temperature, 99.8° R. At this visit she was referred for examination of ears, nose, and throat. The report was negative except for crusted blood on both ear drums and some mucus in the nose. Six days later, on November 26, the mother thought she seemed a little better, was not putting hands in mouth much and slept a little better. She had been given five grains of calcium bromide at bed time. Potassium chlorate and calcium lactate were stopped. Her temperature was 100° R. A von Pirquet test was done and urine and stool specimens sent to the laboratory for examination. Also a white blood cell count, hemoglobin, and Widal test for typhoid and paratyphoid were made. Blood Wassermann test was requested but refused. Two days later, November 28, von Pirquet was negative; urine, negative; stools, negative for typhoid and paratyphoid A. & B. Hemoglobin, 82. White count, 13,500; lymphocytes: mature, 40; immature, 15; endotheliocytes, 1; polymorphonuclear neutrophiles, 44; juvenile, 0; stab forms, 1; segmented forms, 43. Temperature, 99.8° R. Her general condition was worse, and the mother said her hands and feet were swollen. She now volunteered the information that they had been swollen, red and cold once before, but the doctor thought it was due to exposure to cold. Sweating was more profuse. The hands and feet were definitely swollen, cold, and a pink eruption was especially noted, involving fingers, toes, and lateral surfaces of feet, not extending onto the dorsum to any extent. The weight was now fourteen pounds, nine and three-fifths ounces, a loss of six and two-fifth ounces since November 16. With this characteristic appearance of hands and feet, associated with the nervous symptoms, a photophobia manifested by keeping the eyes closed or hidden from the light, profuse sweating, anorexia and loss of weight, previous stomatitis, and picture of abject misery, we were able to make a positive diagnosis of so-called acrodynia. On November 30, there was a maculo-papular eruption on the chest and abdomen. There was some desquamation on the hands and toes. She seemed to have more discomfort in the hands and feet, as she constantly rubbed her hands together or put them in her mouth and kept her feet moving when in bed.

In spite of treatment with high vitamins, including viosterol and ultraviolet light, there was little change in her condition dur-

ing the month of December, 1929. Sedatives had no effect, and cold calamine lotion applied locally seemed to give little relief. She slept poorly, ate very little and at one time the weight got down to fourteen pounds. Temperature varied from 99° R. to 101° R. The generalized rash would come and go, sometimes being miliary and at other times larger macules and papules were present. The pink eruption and swelling of hands and feet remained quite constantly the same, desquamation frequent. At times a rhinitis would appear but usually cleared up in a few days. One of these attacks occurred on December 16. At that time it was noted by the nose and throat department that there was much pus in the nose. Tonsils, moderately enlarged, red, and showing a little pus in the right one.

On January 2, 1930, she seemed a little better to the mother, though findings were about the same. She then weighed fourteen pounds, eight ounces, a gain of eight ounces. On January 10, 1930, was our last examination, as the parents moved to California on that date. At that time she still had her temperature of 99.8° R., was eating and sleeping a little better, and the rash on hands and feet was about the same; weight fourteen pounds, eight ounces. She was in poor condition, and we did not advise the trip to California by motor truck. No change was made in the treatment, except ultra violet exposure was discontinued.

In a letter from the parents, dated February 1, we were surprised to find that quite marked improvement had begun immediately after starting their journey and too soon to give the California climate any credit for it. On January 31 she weighed fourteen pounds, eleven ounces; February 28, sixteen pounds, twelve ounces; March 31, eighteen pounds; and April 28, eighteen pounds, fourteen and one-half ounces. All traces of her illness had gone. At the onset she was beginning to walk, but soon, because of weakness or paresis, was unable to do so. She began to walk again on March 24.

Discussion

From a study of this case, we are unable to advance our knowledge of the disease. Although breast fed for one year, her diet may have been deficient, as no other foods were given regularly, except orange juice. No cod liver oil was given. Immediately following weaning, her diet was very restricted for about one month.

Preceding her characteristic symptoms, a diarrhea was present, and at intervals during her course, rhinitis and tonsillar infection were noted; hence an antecedent and concurrent infection, as a source of toxins and cause of the disease, was present. Also a slight elevation of temperature was always present, favoring infection.

She did not respond to substances rich in all the known vitamins, or to ultraviolet light. The vitamins may have been lacking quantitatively, though, as hospitalization was refused and the anorexia made feeding difficult.

I am unable to explain the marked improvement, which immediately began upon change of locality or environment. No change in food or medication was made. It suggests allergy or a neurosis, both of which have been mentioned as etiological factors.

REFERENCES

[1]White, J. C.: Acrodynia in Adults. J. A. M. A., Oct. 2, 1926.

[2]Bilderback, J. B.: Acrodynia. J. A. M. A., Vol. 84, Page 495, 1925.

[3]Foerster, Harry R.: Erythredema Polyneuritis. Arch. of Derm. and Syph., Vol. 12, Page 17, 1925.

[4]Bilderback, J. B.: A Group of Cases of Unknown Etiology and Diagnosis. Northwest Med., October, 1920.

[5]Weston, Wm.: Acrodynia. Arch. Pediatrics, Vol. 37, Page 513.

[6]Perlman, H. Hains: Acrodynia With Complete Recovery. Med. J. and Record 130; 370, October 2, 1929.

[7]McClendon, S. J.: Yeast and Irradiated Ergosterol in the Treatment of Acrodynia. J. A. M. A., August 10, 1930.

[8]Royster, L. T.: Swift's Disease (Acrodynia, Erythredema). Clinical Pediatrics, Vol. X, Page 276.

[9,10]Warthin, A. S.: So-called Acrodynia or Erythredema (Swift's Disease). Archives of Pathology, Vol. 1, Page 64.

[11]Kernohan, James W., and Kennedy, Roger L. J.: Acrodynia (so-called). Am. J. Dis. of Children, August, 1928.

[12]Rhoda, F. C.: Acrodynia: A Clinical Study of Seventeen Cases. Am. J. Dis. of Children. 30; 224, 1925.

SEPTICEMIA IN CHILDREN*

M. M. GINSBURG, M.D.
DENVER

Many reports have appeared in recent literature dealing with the subject of septicemia. However, relatively few have discussed the problem from a pediatric standpoint.

The object of this paper is to present to you information obtained in the study of twelve cases of septicemia and to discuss briefly the mechanism of infection as it is especially related to children.

Definition

In reviewing the literature it soon became very evident to me that there was no one definition for the term septicemia that was universally accepted. Cooke's definitions are perhaps most widely agreed upon. He states, "the symptoms arising from circulating poisonous products in bacterial infection should be designated as toxemia; to refer to the condition in which micro-organisms are present in the circulating blood but without any toxic symptoms as bacteremia; and to designate a combination of toxemia and bacteremia as septicemia." Pyemia is a term generally accepted as meaning a septicemia in which secondary foci of suppuration occur and multiple abscesses are formed.

Septicemia must have its origin at some focus through which bacteria can gain entrance into the circulating blood. Usually that focus is very evident as the local inflammatory process gives up its secret. However, in a certain percentage of cases no such focus can be found either during life or at autopsy. This type of case is designated as cryptogenic septicemia. It deserves our very best efforts at diagnosis and treatment because it is this type of case that is most treacherous and carries with it the highest mortality rate.

Etiology

The human body, under certain conditions even in utero, is periodically exposed to the entrance of foreign irritant substances. Many of these substances are able to do little or no harm because of a natural immunity or a previously acquired immunity. In other instances the body protects itself by a local inflammatory process. Often this inflammatory process is not adequate to hold in check the invading organism either because of the virulence of the latter or because of the poor local reaction. This fact probably accounts for the cases in which a septicemia is present but no focus of infection can be demonstrated. The body still has other means of protection. Bacteria which reach the blood are as a rule quickly removed and destroyed with little opportunity for multiplication. This removal and digestion of circulating organisms is one of the functions of the fixed cells of certain organs, namely the endothelial cells of the lung, liver, and spleen. When this barrier is broken, a general septicemia occurs. Some authorities claim that organisms never multiply in the circulating blood but are present because of their periodic entrance. The recurrent attacks of chills and fever lends evidence to this hypothesis. If the organisms actually multiplied in the blood, we should expect a continuous fever. They also reason that if actual multiplication took place the organisms ought to be found in much greater number upon examination of the blood. It is probably only when the infection is overwhelming and the defenses of the body collapse that growth and multiplication of the infecting organism takes place in the blood. Death is imminent when this happens.

Septicemia knows no age limit. However, there is an evident difference in susceptibility between younger and older individuals. Experimental work on animals has proved this conclusively. Every physician is undoubtedly acquainted with the fact that an attack of scarlet fever, measles, or diphtheria in an infant is more apt to run a severe course than in an older individual. Neufeld, quoted by Abt, states that the greater resistance of older individuals is due to the fact that the defensive mechanism is better developed in the mucus membrane

*Read before the Medical Society of the City and County of Denver, December 1, 1931.

and lymphatics. Due to repeated exposures, the adult has developed a greater number of antibodies and a greater complement content. Von Groer, in a lecture at the University of Colorado, presented proof that in the case of diphtheria a natural immunity begins to develop at about two years of age and is complete in adult life in about 90 per cent of the cases. This immunity is not dependent upon repeated exposures as is proved by the fact that the populace of isolated islands where no diphtheria is present also have that immunity when they reach adult life.

A great number of organisms have been found to be the causative agents of septicemia. Even organisms which are ordinarily non-pathogenic may under certain conditions gain entrance into the blood stream and prove fatal. The streptococcus, pneumococcus, meningococcus, and typhoid bacillus are the most frequent offenders. In some diseases such as pneumonia and typhoid fever one is hardly justified in placing the emphasis on the septicemia, as the organisms are present in the blood stream in the vast majority of the cases. The septicemia is essentially a concomitant part of the disease. Procharsha and Weins state that they have been able to recover the pneumococcus in practically all of their cases of pneumonia.

It is the various strains of the streptococcus group and particularly the hemolytic type that is most often the causative agent of the characteristic phenomenon of septicemia. It is true that one organ or another may at different times carry the burden of infection, but the clinical picture of the septicemia is usually dominant when the hemolytic streptococcus is the invader.

It is with this group of septicemiae that I am particularly interested. It is my conviction, based upon the small series of cases of this report and a great many cases found in the literature, that the streptococcus septicemia has very often been the cause of death where the diagnosis has remained obscure.

Smith in 1922 reported an epidemic of hemolytic streptococcic septicemia in children ranging in age from one to seven and one-half months. Out of seventeen children who were in the same ward, nine came down with septicemia, seven of whom died. In only two of these children was he able to find any source of infection which may have acted as the focus for the septicemia. These two children presented an acute pharyngitis. The dominating clinical picture might never have been recognized without positive blood cultures.

Davis and Rosenau in 1912 described an epidemic of streptococcus sore throat which occurred in Chicago that year. A great many of the cases promptly showed symptoms of septicemia and rapidly went on to a fatal termination.

Campbell in a series of nine cases of septicemia in children stated the following were the portals of entry: one from a paronychia, one from an infected breast, three following a gastro-enteritis, two associated with congenital heart disease, and two following an acute otitis media without mastoid complications.

In a study of the cases of this report, I found that in three of the twelve patients there was no demonstrable focus of any kind. In one there was only a slight injection of the throat which possibly could have acted as a focus. One case appeared to be a frank pneumonia, but at autopsy there were found multiple small abscesses of both lungs which might possibly have been the result of the septicemia rather than the cause of it. Two cases of uncomplicated acute otitis media, one acute mastoiditis, and one otitis media complicated by an acute cervical adenitis were also apparently the causative factors in the septicemiae. In one case the septicemia apparently followed an attack of influenza.

Pathology

There are no constant pathologic findings in septicemia. The secondary localization of bacteria depends in part upon an apparent selection of different organisms of certain tissues that offer better conditions for their development. It has been shown that trauma and exposure lower the tissue resistance. Cooke calls attention to the possibil-

ity of setting up a point of entrance in the meninges when one performs a lumbar puncture for diagnostic purposes in a case of septicemia.

Practically any organ may show pathologic changes. At post-mortem examinations the spleen, kidneys, pleura, peritoneum, and pericardium most frequently show morbid changes.

Symptomatology

Keeping in mind the pathology, it is not surprising to find the symptoms extremely variable. It is this variability and multiplicity of symptoms that frequently hinders us in making a correct diagnosis.

There are a few symptoms, however, that are commonly present regardless of the localization of the organisms:

1. Fever. The temperature is usually of the septic type, sometimes varying from 96 to 106 F. However, in some rapidly fulminating cases the temperature may show a steady rise, sometimes reaching 108 F. in the terminal state. In other cases, though comparatively infrequent, the temperature is sub-normal. This is especially true in weak infants with poor circulation.

2. Rigor. Chills and sweats are commonly present, but many cases are seen without these symptoms. Rigors, when present in infants, are often characterized more by stiffness and moderate cyanosis than by a shaking chill. Evidence of increased pressure of the cerebrospinal fluid such as bulging fontanelle, neck rigidity, and positive Kernig's sign may be noted during a septicemia without demonstrable infection of the spinal fluid. In one of the cases of this series the spinal fluid showed a cell count of 1,600, but no organisms could be demonstrated. At autopsy there was no evidence of meningitis.

3. Pain. Generalized joint and muscle pains are frequently present and often the most disturbing features to the patient.

4. Nausea and vomiting. These symptoms are usually due to the toxemia, but in the epidemic described by Davis and Rosenau peritonitis was found at all autopsies. Smith also found peritonitis present at all autopsies in the epidemic which he described, but without characteristic vomiting —only distention.

5. Restlessness. This manifestation is very commonly observed and often is the first symptom that leads one to suspect septicemia. The children frequently toss about in bed, apparently unable to find a comfortable position. This restlessness is often associated with delirium.

6. Cyanosis is frequently observed especially in the rapidly fulminating type of streptococcic septicemia. The cyanosis may be very profound and very extensive. The skin often takes on an ashen color with interspersed blotches of cyanosis. It has been pointed out that this cyanosis is not due to a decompensation of the heart but to a toxic paralysis of the nerves supplying the superficial vessels.

7. Embolic processes. Petechiae may quite often be observed on the outer surfaces of the arms and under the matrix of the nails and over the upper abdomen and chest. The tender nodes of Osler which are due to embolic processes of larger arterioles are especially seen in distant joints.

Emboli may of course also lodge in any of the organs, causing infarcts. The symptoms will depend upon the organs involved. Thus, it is not uncommon to find marked urinary changes or evidence of a septic pneumonia or septic joint. The presence of multiple furuncles is another manifestation of septic emboli.

8. Terminal signs. Pulmonary edema, cardiac irregularity, cyanosis, falling temperature and coma commonly terminate the illness.

If the septicemia becomes sub-acute, the patient may very often present a very typical typhoid state. Emaciation, anemia, and endocarditis are then commonly observed.

The general appearance of the patient during this stage may show amazing changes with the rise and fall of temperature that occurs during the day. When seen during the afebrile hours the general well being of the patient belies the seriousness of the condition which becomes manifest as the temperature goes up. And this profound change may take place within an hour or two.

Diagnosis

When a possible portal of entry is manifest and symptoms of septicemia arise, then the diagnosis is comparatively simple. The final verdict lies of course with the finding of a positive blood culture. The task of obtaining a positive blood culture is often difficult. A proper technic is essential. Numerous trials are often necessary before a positive culture is obtained.

The diagnosis is most frequently missed in those cases where there is no demonstrable focus of infection. These cases usually present a multiplicity of symptoms that cannot be explained by any one clinical entity. Septicemia is probably present when this is true.

The attention of the physician is too often monopolized by the organ which shows the greatest pathology. Thus when there are marked urinary changes present we often try to explain the whole clinical picture on the basis of a pyelitis or nephritis. An increase in the spinal cell count may lead one astray and an erroneous diagnosis of meningitis may be made. Symptoms of peritonitis may dominate the picture so that the essential clinical manifestations of septicemia may be masked.

Prognosis

Campbell, in a discussion of septicemia in children, suggested that a better title of his paper would have been "Hopelessness of Septicemia." Eight of his nine cases died—showing a mortality rate of 88 per cent.

Waven and Herrick, in an analysis of 134 cases of septicemia, found that they had a mortality of 61 per cent. However, probably not all of their cases were true septicemiae as defined in this paper. Some would undoubtedly fall in the class of bacteremiae, which carries a lower mortality rate.

Cases in which surgical intervention was possible, such as in mastoiditis, sinus thrombosis, and infected wounds, the mortality rate was found to be lower—50 per cent.

Of the twelve cases which I am reporting eight died, giving a mortality rate of 75 per cent. Of the four that recovered, three received transfusions. In addition one had repeated myringotomies, one was operated on for an acute mastoiditis and sinus thrombosis, and one received anti-streptococcus serum. The one patient who received no transfusions was given three intravenous injections of mercurochrome.

As seen from these reports, the prognosis is extremely grave. The younger the child the less favorable is the outlook. During the first few months of life the mortality rate approaches 100 per cent.

Treatment

As in many other disease conditions where the etiologic agent varies from case to case the treatment is unsatisfactory.

Prophylaxis is of primary importance. Early surgical intervention in cases where the foci of infection are demonstrable will prevent many septicemiae. Delay in the drainage of an acute osteomyelitis, for example, greatly increases the danger of septicemia, and the same risk attends neglected mastoiditis and other suppurations. Epidemics of septicemia occurring in wards have been described by Smith, Davis and Rosenau, Keegan, and Fox and Hamburger. These epidemics are definitely preventable by proper isolation. It is not sufficient to isolate only the common communicable diseases. Cases of sore throats, especially those due to the streptococcus, and other respiratory infections must be properly isolated. Even children suffering from the same specific disease when they present secondary infections should be segregated. Proper isolation is especially important on infant wards because of the high degree of susceptibility of infants to upper respiratory infections which are often precursors to septicemia and the high mortality rate caused by these infections.

Treatment with serums have been disappointing. Success can hardly be expected when we consider the specificity of the different strains of organisms. If a favorable result is obtained it is only by mere accident and unfortunately reports prove that these accidents are rare.

Vaccine treatment has not only proved useless but in some cases has apparently been harmful. Even from a theoretical con-

sideration their use cannot be justified. Certainly when a septicemia is present there are already enough antigens and non-specific proteins in the body.

Transfusions have been extensively used. Some are very enthusiastic about the results obtained while others state that transfusions have given only temporary improvement or none at all. During my year's residency at the Children's Hospital I had occasion to observe a considerable number of cases of septicemiae associated with acute mastoiditis and sinus thrombosis. The hemolytic streptococcus was the usual causative agent with a resulting rapid decrease in hemoglobin. Most of these cases were transfused. The consensus of opinion of the men who observed these cases was that this procedure was of great value if not life saving. Of the four cases which recovered in the series here recorded, three received transfusions. Transfusions semed to be of no avail in the rapidly fulminating type of septicemiae.

Some work has been done along the line of immunizing the donor's blood by repeated injections of the specific vaccine obtained from the patient. Reports have been too few to form an opinion as to its merits.

Various dyes injected intravenously have also been tried with variable results. Mercurochrome is the most frequently used. Noble, Miller, Blake, and many others have reported success in treatment of individual cases of septicemia with this dye. Of the cases in my report only one was treated with mercurochrome. This patient made a prompt recovery from his septicemia on the fourth day after receiving three injections of mercurochrome. However, a secondary suppurative focus developed in the left axilla on the second day, after he had already received one injection of mercurochrome, which required several weeks of drainage before it cleared up.

In my opinion there is a large field for research work in connection with the problem of finding a successful drug for septicemia. Perhaps if this condition attracted as much attention as syphilis we would soon have a drug as efficacious as salvarsan.

Since we have no specific treatment for septicemia we should take advantage of every supportive measure at our command. The question of fluids is of great importance. We do not yet know the essential factors that cause a loss of liquid from the blood in cases of severe infections, but that such loss does occur has frequently been observed. To replenish that dehydration we must force fluids in every possible way. Cooke cautions the use of the intra-peritoneal route, as the trauma attending it may set up a point of lowered resistance for a peritonitis. Intravenous glucose solution (10 per cent) has a definite beneficial effect. The value of cardiac stimulants is a debatable question. Many writers believe that caffein and digitalis should only be used in decompensated hearts and not in toxic conditions. A high caloric diet in the more chronic septicemiae is indicated to the same extent as in typhoid.

Roeder believes that intravenous transfusions of whole blood can well be considered part of the general supportive measures to be employed in all cases.

Summary

1. Observations from twelve cases of septicemia in children are recorded.

2. Mechanism of infection as related to children is discussed.

3. Cryptogenic septicemiae in which one cannot demonstrate the original focus of infection are probably much more frequent than are recognized.

4. The diagnosis of septicemia is often missed because one organ or another carries the burden of the attack and distracts our attention from the clinical picture in its entirety.

5. The mortality rate in septicemia remains extremely high.

6. There is no effective treatment for septicemia. The injection of various dyes intravenously and repeated transfusions have been given variable results. General supportive measures should be employed to the limit.

PUBLIC HEALTH NOTES

Editor: J. W. AMESSE, M.D.

Health of American Children

It is high time to take stock of what is happening to the childhood of our country in this prolonged period of depression. So many loose and ill-advised statements have been made recently regarding the "high health" of American children, that we should turn to those who are in intimate contact with medical and social problems daily, in order to correct false impressions.

While it is true that the infant mortality rate has continued to decline and that the babies of this country have been, on the whole, well provided for, by no means indicated that the pre-school and school children are in satisfactory condition. On the contrary, reports coming in from various sections of the country state that malnutrition and under-nutrition appear to be on the increase, and that it is only through heroic efforts to feed our school population that the children are barely kept from stepping over the starvation line. But physical deterioration is not the only effect of such a period. Social maladjustments and delinquency are multiplying. The widespread uncertainty and instability of family life seriously affect the children.—American Journal of Public Health.

Texas Only State Outside Death Registration Area

It will come as a surprise to many to learn that the state of Texas, which stands in the forefront of modern civilization, should still be excluded from the registration area for death returns. The necessity for official record of births and deaths has been particularly emphasized since the World War; veterans in sad need of accurate data concerning their antecedents have found it exceedingly difficult to prove their claims for compensation.

It appears that although a wealthy state, Texas has been very niggardly in its appropriations for vital statistics, but various organizations throughout the state are now concentrating their attention on this subject so that we may look forward to the early inclusion of Texas in our census statistics.

"Microbe Hunters"—Paul de Kruif

Those who have read Paul de Kruif's "Microbe Hunters" enjoyed it as a story of logical events. They begin with Antony Leeuwenhoek grinding lenses and peering at things. It was just a pastime then, but he discovered the microbe. The discovery of this "queer one" changed the whole course of medicine from a profession of pill rollers and tongue squinters to a dignified truth searching, cause-loving career. There is romance, tragedy, and glory in the difficult succession of triumphs which have established medicine as an accepted and necessary science. Medicine will automatically continue and advance after the period of crusading and pioneering is over.

Now we have a vast store of information and material which will help us to live most and long and serve best. Our problem now is to know how to use the material. We need to apply that same sound method which old Leeuwenhoek and other Microbe Hunters used. Let's turn our public health problem under the microscope and apply the knowledge we have at hand and be of courageous heart.

Syphilis

Dr. Edward Keyes recently made the statement that approximately 9 per cent of the population of New York state is infected with syphilis and 81,000 new cases are added each year. Other states show equally impressive figures in spite of inadequate methods of reporting.

"It has been stated on many occasions that there is no other single disease which causes a greater degree of human unhappiness, total disability and loss of earning capacity. On the other hand, there is no single disease for which there is a more accurate means for confirming clinical diagnosis, for rendering the patient non-infectious by specific drugs, arresting the destructive spread of the causative organism, and,

under favorable conditions, effecting remarkable cures.

"Syphilis has been known to the civilized world since 1495, and yet until the latter part of the nineteenth century and the first decade of the twentieth, slow progress had been made in the scientific knowledge of its cause, modes of transmission, and means of control and care.

"Dr. Louis Chargin in an interesting study of 444 syphilitic patients, found that a total of 60 per cent were apparently cured and the greatest number of cures, amounting to 90 per cent, were in the primary sero-negative group. It goes without saying that the public should be as thoroughly acquainted with the earliest manifestations of this disease as they are of cancer and tuberculosis, and impressed in a like manner with the hopefulness of early treatment.

"The spirochete which causes the disease is spread by intimate contact of person with person, and only comparatively rarely by household utensils and other articles of personal use.

"Because of the social stigma and exaggerated notions regarding the results of a syphilitic infection, it is not uncommon for patients to develop anxiety neuroses and negativistic attitudes toward treatment. Attention should be brought to the laity of the possibilities of recognizing the disease in its earliest stage and the importance and hopefulness of getting immediate treatment."—From August number of "Public Health Nurse"—By Gladys Crain, Assistant Director National Organization for Public Health Nursing.

The House Fly

The Rex Research Foundation of Chicago makes us feel that a fly swatter is a necessity and in no sense a luxury. One tiny fly carries a load of 6,000,000 germs. The Research Foundation traces thirty distinct diseases to this little house pest. Typhoid, tuberculosis, cholera, and infantile paralysis are among the contaminating germs under a fly's wings. Fifty thousand American babies are the victims of infantile diarrhea each summer.

Poison Ivy

It is important that people who spend any time in the country recognizes the poison ivy plant. Any public library has pictures and detailed information concerning it.

The plant contains an oily substance called toxicodendrol which contains properties so intensely irritating that the smallest amount deposited on the skin is capable of producing a severe inflammation. This oil can be carried on one's clothes, on the fur of domestic animals, and in smoke of the burning plant. The small amounts distributed in these ways are seldom enough to affect most people. But let any one get enough of the oil on his skin, and the inflammation is inevitable.

If a person has accidentally touched the plant, the best precaution he can take is to wash with soap and water. Scrubbing with a brush might scratch some of the oil under the skin where it can do so much damage. If the irritation gets a start, a physician should be seen at once. It is such an easy thing to know the plant—and, again, prevention is so much easier than cure.

Whooping Cough Cycle

A recent survey of whooping cough was made in twenty-nine states by the Department of Hygiene and Bacteriology, School of Medicine, Western Reserve University, Cleveland, Ohio. The results of the study showed that October is the most frequent month of minimum incidence and that the disease is generally low during the last four months of the year. The maximum peak for the southern and Pacific states is late in May; for the northern states except Minnesota (March and May), Michigan (June and July), and Wisconsin (August), it is in January and February.

The peak does not seem to be determined by climatic conditions. If these findings are true, the peak of whooping cough incident being May for the South and January and February for the north, the relation of these high points to each other is the reverse of the findings for such infections as diphtheria, measles, and scarlet fever.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

Editor: J. J. WARING, M.D.

BOOK REVIEWS

U. S. Army X-Ray Manual. Authorized by the Surgeon-General of the Army. Second Edition. Rewritten and Edited by Lt. Col. H. C. Pillsbury, M.C., U. S. A. 228 illustrations. New York: Paul B. Hoeber, Inc. 472 pages. Price $5.00. 1932.

This book attempts to cover in 472 small pages the whole realm of x-ray diagnosis, with related physics, technic, and apparatus. It does not deal with radiation therapy. With the experienced roentgenologist the popularity accorded the first edition deserves continuation mainly because of the section on physics, certain elements of technic, and a few cuts and diagrams. Since there has been adequate occasion for the writing of large volumes on each of the various realms of x-ray diagnosis, such as gastro-intestinal tract, chest, urinary tract, mastoids, sinuses, and bone diseases, it is quite evident that a book of this size, which devotes 191 pages to physics, technic and description of apparatus, could, of necessity, cover the field of diagnosis in only the most condensed manner. This condensation of material is quite in evidence when the book is read. There are many considerations in the forepart which deal especially with problems peculiar to army and field work, and, of course, the book is written primarily as an army manual. It is a primer for the student of roentgenology who wishes to perfect his ability in the tremendous field of x-ray diagnosis.

There is an element of danger in placing this book before the many younger physicians who may feel that they wish to take up x-ray work and do not have the proper conception of the extent to which x-ray diagnosis has been developed, for they may feel after having studied the book that they know the subject, when really their smattering of knowledge would be no more than comparable to a nurse's knowledge of medicine. The better roentgenologists of the country are deploring the use of x-ray by inadequately trained physicians who attempt to use it as a sideline and by young physicians who undertake to specialize in roentgenology without thorough training under good teachers. No doubt the book serves well the purpose of the army in training roentgenologists when combined with courses of instruction and apprenticeship, which the reviewer assumes would be required for all army physicians who were designated as roentgenologists in charge of a department.

The book is very well edited; the language is terse and clear. The writer questions one of the illustrations on page 445 which is shown as a definite case of duodenal ulcer, and also questions the last paragraph on page 219 with regard to the movement of foreign bodies with the eyeball as a sure determination as to whether they are within or without the globe. This is partly modified on the next page, but it is the reviewer's experience that most any foreign body in any part of the orbit, unless within the fixed tissues near the orbital wall, will move appreciably with movement of the eye, and the criterion is the extent of the movement rather than the presence or absence of movement.

F. B. STEPHENSON.

Surgical Pathology of the Female Generative Organs. By Arthur E. Hertzler, M.D., Surgeon to the Agnes Hertzler Memorial Hospital, Halstead, Kansas. Professor of Surgery, University of Kansas. With 285 illustrations. Philadelphia: J. B. Lippincott Company. 1932. pp. 335.

Out of Halstead, Kansas, comes a monograph on surgical pathology "to emphasize the need of conservatism in operation and to point out the baneful effects of needless operation which has reached a magnitude of a major tragedy."

The volume differs from the usual text book on the subject as it expresses the views of the author based on his own wide experience and uninfluenced by the opinion of academicians. He minces no words and uses forcible expressions to decry radicalism in surgery. With this purpose constantly in view, the author accomplishes his objective in a decisive manner by the use of heavy artillery aimed at the promiscuous operator. Hertzler is mistaken if he is of the opinion that the "country yokel" alone found endometriosis a boon to surgery following Sampson's publication on the origin of tar cysts. Not a few city slickers entered into the spirit wholeheartedly to swell the ranks of castrated women. How many operations have been done in the name of cystic degeneration of the ovaries? The majority of these ovaries are perfectly functioning endocrine organs and therefore should be allowed to remain in the pelvis.

Diseases of the external genitalia, tubes, ovaries, and uterus are discussed in turn from the standpoint of pathogenesis, pathology, and histology in a simple and understanding manner. The reader is not confused or burdened by rare disease or statistical data. A bibliography with summary follows each chapter. The illustrations are helpful.

A. W. FRESHMAN.

New and Nonofficial Remedies, 1932, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1932. Cloth. Price, postpaid, $1.50. Pp. 492. lvi. Chicago: American Medical Association.

The recognition of a preparation for inclusion in this book singles it out from the host of new products of the pharmaceutical manufacturers as being a worthwhile addition to the existing armamentarium of the practicing physician.

In accordance with its custom of keeping the annual editions of New and Nonofficial Remedies in the forefront of current medical thought, the Council offers in this volume the newly revised articles: Barbital and Barbital Compounds; Fibrin Ferments and Thromboplastic Substances; Liver and Stomach Preparations; Mercury and Mercury Compounds; and Ovary. Perhaps the most noteworthy new preparations admitted are: nupercaine-Ciba, a local anesthetic; pentobarbital sodium, a barbituric acid derivative; and iopax, a new preparation for roentgenologic use. All of the ovary preparations formerly described are omitted and none of the new standardized preparations are described, although the names Theelin and Theelol are recognized in the revised general article. Another change of importance is the classification of articles formerly listed as "Exempted" under the heading "Accepted But Not Described." There is the usual excellent index and the augmented Index to Proprietaries, Not Included in N. N. R.



SILAS WEIR MITCHELL

(Continued from September)

Dr. Mitchell had many narrow escapes during his investigations with poisonous snakes. On one occasion a snake eight feet long emitted a teaspoonful of poison at him, barely missing his eyes.

He had certain very marked peculiarities, such as an aversion to dinners, anniversaries, and newspaper reporters. He ridiculed the bombastic style of newspaper writers by saying of them: "A dinner is always a banquet, a fire a conflagration, an investigation a probe, an unusual welcome an ovation."

In the fall of 1856, S. Weir Mitchell was married to Mary Middleton Elwyn. By this marriage he had two sons, Langdon Elwyn and John Kearsley, the former inheriting his father's literary talents and becoming an author and a playwright (with the pen-name "John Philip Varley"); the latter inherited the medical and scientific traits, becoming a physician.

In 1875 he married Mary Cadwalader, by whom he had one daughter, who is said to have died of diphtheria which she contracted while visiting the poor.

S. Weir Mitchell was an original investigator; his achievements and contributions in toxicology, snake venoms, physiology, and psychology entitle him to be ranked as a scientist.

A fine example of the scientific trend of his mind is illustrated by an incident that occurred in his laboratory. On a hot July day a teaspoonful of liquid snake poison had been collected in a cup and was neglected because Dr. Mitchell had been called out of the city. Upon his return, decomposition had set in to such an extent that a horrible stench permeated the building. Opening the door and detecting the odor, he said, "I wonder if decomposition has destroyed its poisonous character—let's try it." A test on a pigeon proved that it was still virulent.

In the field of toxicology he studied the toxic action of opium, chloral, chloroform, and ether. The effects of opium were studied by experiments carried out on pigeons; those of chloroform, chloral, and ether were studied by hypodermic and inspiratory administration. Dr. Mitchell had himself anesthetized a number of times to note the action of some of these drugs. In collaboration with William A. Hammond he published, 1859-1860, two papers: "The Alkaloid of Corroval and 'Vao' ". and "The Toxicological Effects of Sassybark."

In 1859 he began his study of snake poisons, the reports being published in 1862 by the Smithsonian Institution. In his early experiments he found that antidotes for snake bites were worthless. This realization prompted him to make a special study of the chemistry of snake venoms. In collaboration with Edward T. Reichert, who was at that time Professor of Physiology at the University of Pennsylvania, he found that rattlesnake venom was composed of two substances: venom peptone and venom globulin. They found that the activity of the poison was due to the former, the virulence and destructiveness chiefly to the latter. These studies were made on the rattlesnake, the cobra, the water moccasin, and the copperhead. At times there were as many as one hundred snakes in the laboratory from which the venom was collected.

(To Be Continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

Attendance at Estes Park

MANY were the dire predictions of low attendance when the less optimistic members of the Society were looking forward to the Sixty-second Annual Session. Some thought attendance would be low because of general financial conditions, but most were fearful of the location itself —far removed from the heavily populated parts of southern and southeastern Colorado, from much of the Western Slope.

It is pleasant to be able to report that the prognosis was wrong, all wrong. The 1932 meeting at Estes Park was not only the largest of any Estes Park meeting we have ever held, not only the largest ever held in that part of the state, but the largest ever held in any city except Colorado Springs or Denver. It surpassed the 1929 Greeley meeting and the 1930 Pueblo meeting, though these latter were held in much more prosperous times and at least one of them in a location much more favorable to the heavily populated districts.

The registration statistics, exclusive of Woman's Auxiliary, are:

Members	294
Guests	7
Visitors	39
Exhibitors	34
Total	374

These compare with the totals of the three previous years very favorably. They were: 1929, Greeley, 344; 1930, Pueblo, 346; 1931, Colorado Springs, 491.

New Officers for 1932-1933

BEFORE this issue of Colorado Medicine reaches its readers the new officers and committees for the current year will be functioning smoothly. Following a precedent established a year ago by President Delehanty and President-elect Stephenson, appointments of chairmen and members of standing committees by President Stephenson and President-elect Webb have been completed with alacrity to avoid interruption of the Society's work. As this is written (September 19) five committee meetings have already been held since the annual session adjourned, and three more are under call.

Every election at the Annual Session was unanimous and enthusiastic, a fact testifying to the care with which the Committee on Nominations made its recommendations. Elsewhere in this section of Colorado Medicine is the complete list of new officers and committees, and only those elected at the last meeting are named in the list below. All other elective officers hold over for one or more years according to their terms.

Those chosen on September 10 are:

President-elect: Gerald B. Webb of Colorado Springs.

First Vice President: Walter W. King of Denver.

Second Vice President: Lawrence L. Hick of Delta.

Third Vice President: B. Franklin Blotz of Rocky Ford.

Fourth Vice President: William P. Gasser of Loveland.

Treasurer (three-year term): Leo W. Bortree of Colorado Springs (re-elected).

Councillor, Fifth District (five-year term): A. L. Burnett of Durango.

Delegate to the American Medical Association (two-year term): John W. Amesse of Denver (re-elected).

Alternate-delegate to the American Medical Association (two-year term): Arthur J. Markley of Denver.

Member of the Committee on Publication (three year term): William H. Crisp of Denver (re-elected).

Colorado Springs was chosen as the place for the Sixty-third Annual Session, and the time was set as mid-September, 1933, the exact dates to be fixed by the Committee on Scientific Work and the Secretary.

Exhibit Awards at Estes Park

SCIENTIFIC and roentgenologic exhibits at the Sixty-second Annual Session were generally conceded to be above the average in teaching value, careful preparation, and excellence of presentation. The judges appointed by the Committee on Scientific Work to appraise the exhibits and award certificates of merit reported that their work was far from easy.

For the benefit of those unable to attend the sessions or who otherwise did not receive the announcement of winners, the awards are listed below.

In the General Scientific Exhibition:

First Award: Drs. R. R. Parker and G. E. Davis of the U. S. Public Health Service, Hamilton, Mont. Title, "Tick-borne Infections of the Rocky Mountain Region."

Honorable Mention: Dr. William C. Finnoff, Denver. Title, "Management of Ocular Injuries; Demonstration With Plaster Models."

Honorable Mention: Dr. Richard W. Hitehead, University of Colorado School of Medicine and Hospitals, Denver. Title: "Autocoid Effect of a Hydatid Mole."

Honorable Mention: Dr. Benjamin F. Jackson, Fort Lyon. Title: "Mexican Medicine in the Southwest."

Honorable Mention: Dr. Lanning E. Likes, Lamar. Title: "Cystic Degeneration of the Appendix."

In the Roentgenological Exhibition:

First Award: Dr. Kenneth D. A. Allen, Roentgenologist for the Presbyterian Hospital, Denver. Title: "Roentgenological Studies of the Human Diaphragm."

Honorable Mention: Dr. C. E. Earnest of the Corwin Hospital, Pueblo. Title: "Sinus X-Ray With Lipiodol."

Honorable Mention: Dr. Harry H. Wear, Denver. Title: "Serial Pyelograms in Nephroptosis."

Honorable Mention: Roentgenological Staff of the Children's Hospital, Denver. Title: "Non-radiopaque Foreign Bodies in the Bronchi."

Prepare Now for Legislative Work

THE CHANGE of Society administration last month was effected with less confusion in committees than ever before. This was especially true of the Public Policy Committee. The retiring committee paved the way in this year's legislative activity in such a way that the incoming committee could take up the work without missing a step.

There is a sub-committee, consisting of a special representative of the state or central Public Policy Committee in every state senatorial district. In certain instances where geographical barriers make investigations difficult, two or more sub-committee members have been appointed in one senatorial district. These members, working together with the Public Policy Committees of the county and district societies, are being held responsible for the investigation of candidates and for frequent reports on the progress of the election campaign.

Legislation passed next spring in the capitol at Denver is being born now in political circles all over the state. It is time now for members of the Society to think along legislative lines, to study the attitude of legislative candidates toward scientific medicine and public health. It is time to line up the support of families, patients, friends, for those candidates who will, if elected, look upon medical and public health legislation rationally, with the ultimate public welfare uppermost in mind.

The Public Policy Committee and all its sub-committee members welcome suggestions, correspondence, information about candidates and about prospective legislation. The time for concentrated campaign work is now. Write today to the Executive Office of your Society with your suggestions.

MEDICAL SOCIETIES

THE COLORADO OPHTHALMOLOGICAL SOCIETY

DR. C. E. SIDWELL, PRESIDING
April 16, 1932

Drs. Wm. C. and Wm. M. Bane presented a young man of 18 years with a developmental cataract.

Dr. Wm. H. Crisp presented a five-year-old boy who had had a lacerating wound of the cornea, iris, and lens from being struck by a stick.

Dr. I. E. Hix presented a colored male of fifty-one years with a somewhat atypical retinitis pigmentosa.

Dr. C. E. Sidwell presented a man with a cataract and a boy who had had recurrent corneal ulcers.

Dr. R. W. Danielson presented a miner on whom he had done an optical iridectomy, the eye having been previously injured in an explosion.

R. W. DANIELSON,
Secretary.

PUEBLO COUNTY

The Pueblo County Medical Society held its regular meeting September 6, 1932, at the Hotel Congress. The Scientific program consisted of a paper by Dr. J. S. Norman on "Some Observations of Dr. Bohler's Methods of Treating Fractures."

The second regular meeting of the Pueblo County Medical Society was held Tuesday, September 20, 1932, at the Hotel Congress. Dr. R. R. Taylor was the principal speaker of the evening presenting a paper on "Difficult Labor," accompanied by moving pictures.

FREMONT COUNTY

Dr. Claude E. Cooper of Denver was the guest speaker at the regular meeting of the Fremont County Medical Society held September 26 in Canon City. Doctor Cooper spoke on Medical Economics.

WOMAN'S AUXILIARY

The Woman's Auxiliary to the Colorado State Medical Society held one of its most successful annual meetings September 8, 9, and 10 at the Stanley Hotel, Estes Park.

The business meeting Friday morning, which

was better attended than usual, was presided over by Mrs. T. Mitchell Burns, president. She should be well proud of her presidency, as we are of her. Her report, which is quite inclusive as to work in the various counties, follows:

"As the Woman's Auxiliary to the Colorado Medical Society nears the close of another year, we look back to see what has been accomplished.

"We find a membership of 344 women in eight counties, a slight increase over 1930 and 1931.

"The chairmen of committees correspond to those of the national organization and seek to carry out as far as possible the suggestion of the National Auxiliary.

"The study envelopes prepared by them have been sent to all county presidents, to a traveling library, and to Parent-Teacher Associations.

"Four counties have a Public Relations chairman.

"Articles have been sent each month to the Medical Journal.

"Hygeia subscriptions have been sent to schools and P. T. A. organizations.

"The work has been three-fold: social, philanthropic, and educational.

"Some counties are organized for purely social benefit but feel it well worth-while in that it stimulates attendance at the Medical Society and increases friendship between the families of physicians.

"Many garments and layettes have been made and distributed, Pueblo alone making 450 garments.

"A Medical Student Loan Fund has been continued, a donation to the Visiting Nurse Association paying for a visit of a nurse in perpetuity, also continued for the third year, and several smaller benevolences carried on by different counties.

"The suggestion of a Benevolent Fund for physicians and their families was considered at a meeting of the Board, and a plan will be submitted to the general assembly at the annual meeting.

"The President wishes to thank all officers and chairmen of committees and members for their cooperation, without which nothing can be accomplished, and to assure the new officers of our support in the coming year."

The Benevolent Fund question, above mentioned, was referred to a committee for consideration and investigation, a plan to be suggested at the next annual meeting. This is a vital question and should not be acted upon quickly.

Mrs. B. Franklin Blotz of Rocky Ford, the new president, took the chair and proved herself efficient, capable, and charming.

The following officers for the coming year were elected: Mrs. George P. Lingenfelter, Denver, president-elect; Mrs. J. J. Pattee, Pueblo, first vice president; Mrs. W. F. Brownell, Fort Collins, second vice president; Mrs. B. F. Walter, Durango, third-vice president; Mrs. John A. Weaver, Greeley, fourth vice president; Mrs. L. E. Likes, Lamar, recording secretary; Mrs. R. S. Johnston, La Junta, corresponding secretary; Mrs. F. Dewey Bishop, Denver, treasurer (re-elected); Mrs. Maurice Rees, Denver, auditor; Mrs. Philip Work, Denver, parliamentarian.

The luncheon and card party followed the meeting, Misses Jane and Betty Brown entertaining with violin and piano numbers. The Auxiliary is indebted very much to Mr. David Brown, representing the Burroughs-Wellcome Company who was responsible for the bridge prizes, the donors being: the Johnson-English Drug Company, Colorado Springs, the Earnest Drug Company of Denver, B. Strickland, Incorporated, of Denver, the Walgreen Company of Denver, and A. G. Clarke and Company of Denver.

This meeting showed that the Colorado Auxiliary members are becoming more and more interested and that we are proving ourselves of more help to the doctors. If in a year when everyone is crying depression, we can have such a wholehearted support, our future must be assured.

Our hostesses, Larimer County, saw to every need; every plan was carried out to perfection; the only disappointment being that the social chairman, Mrs. W. A. Kickland, who had expended so much of her time and energy in making it a success, was not able because of her recent bereavement to be present to see its culmination.

Colorado Auxiliaries should have a full program for the coming year with their continuation of their philanthropies and education, and for our new work the serious consideration of the Physicians' Benevolent Fund. The enthusiasm shown at the annual meeting we hope will be carried throughout the coming year.

MRS. DOUGLAS W. MACOMBER,
Chairman of Press and Publicity.

COLORADO NEWS NOTES

COLORADO SPRINGS—Dr. S. W. Schaefer has returned to practice after a prolonged illness. He had been out of practice over a year, but is feeling very much better.

DEL NORTE—Dr. and Mrs. A. B. Djellum of Del Norte recently returned home from a vacation to California and Victoria, B. C.

DENVER—Dr. H. W. Snyder of Denver, Surgeon General of the Veterans of Foreign Wars, attended the state Legion convention at Lamar.

DENVER—Dr. A. L. Beaghler has returned to duty as Chief of the Health Service, Denver Public Schools, after a month's illness.

DENVER—Dr. W. W. Barber and family are spending a vacation in New York City as guests of the Doctor's brother, Dr. Edgar Barber.

DENVER—Drs. T. E. Carmody, W. H. Crisp, and Melville Black attended the annual meeting of the Academy of Ophthalmology and Otolaryngology at Montreal in September.

DENVER—Dr. George B. Packard has returned from a motor tour of the west coast.

DENVER—Dr. C. F. Kemper and Dr. Claude E. Cooper were guests of the Utah State Medical Society at its annual session in Ogden, September 15 to 18.

DENVER—Dr. F. G. Ebaugh has resumed his studies at the State Psychopathic Hospital after a year's absence studying the curricula of medical schools with respect to psychiatric training.

DENVER—Dr. Leonard Freeman, Jr., of the Mayo Clinic, enjoyed a brief vacation with his parents, Dr. and Mrs. Freeman, of Denver, early in September.

DENVER—Dr. H. L. Fowler and Dr. L. W. Soland, Medical Reserve Officers, participated in the annual maneuvers at Pole Mountain, Wyoming, in August. Dr. Crum Epler, in command of the medical regiment, served as inspector.

Colorado State Medical Society
Officers, 1931-1932

President: Frank B. Stephenson, Denver.

President-elect: Gerald B. Webb, Colorado Springs.

Vice Presidents: First, Walter W. King, Denver; Second, Lawrence L. Hick, Delta; Third, B. Franklin Blotz, Rocky Ford; Fourth, William P. Gasser, Loveland.

Constitutional Secretary: Lorenz W. Frank, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 656-658 Metropolitan Bldg., Denver. Telephone KEystone 0870.

Delegates to American Medical Association: Senior, Crum Epler, Pueblo; Alternate, J. N. Hall, Denver; Junior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver.

Councillors:		*Term Expires*
District No. 1	Ella A. Mead, Greeley	1935
District No. 2	G. P. Lingenfelter, Denver	1934
District No. 3 (Chairman)	George D. Andrews, Walsenburg	1933
District No. 4	W. W. Crook, Glenwood Springs	1936
District No. 5	A. L. Burnett, Durango	1937

Standing Committees, 1931-1932

Credentials: Lorenz W. Frank, Denver, Chairman; W. A. Campbell, Colorado Springs; Harold T. Low, Pueblo.

Scientific Work: Dr. G. Burton Gilbert, Colorado Springs, Chairman; C. S. Bluemel, Denver; James J. Waring, Denver.

Arrangements: John B. Crouch, Colorado Springs, Chairman; T. R. Knowles, Colorado Springs; John B. Hartwell, Colorado Springs.

Public Policy: Walter W. King, Denver, Chairman; H. R. McKeen, Denver, Vice Chairman; Edward Delehanty, Denver; Gerrit Heusinkveld, Denver; A. L. Beaghler, Denver; W. W. Harmer, Greeley; O. D. Groshart, La Junta; L. L. Ward, Pueblo; A. C. Holland, Colorado Springs; F. B. Stephenson, Denver, ex-officio; L. W. Frank, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: C. F. Kemper, Denver, Chairman; C. S. Bluemel, Denver; William H. Crisp, Denver.

Medical Defense: W. W. Wasson, Denver, Chairman; C. F. Hegner, Denver; T. D. Cunningham, Denver.

Medical Education and Hospitals: C. N. Meader, Denver, Chairman; K. D. A. Allen, Denver; H. A. Black, Pueblo.

Library and Medical Literature: E. D. Downing, Woodmen, Chairman; Carbon Gillaspie, Boulder; F. W. Kenney, Denver.

Co-operation With Allied Professions: Harry S. Finney, Denver, Chairman; George R. Warner, Denver; John Andrew, Longmont.

Medical Economics: C. E. Cooper, Denver, Chairman; B. B. Blotz, Rocky Ford; Philip Hillkowitz, Denver.

Necrology: G. M. Blickensderfer, Denver, Chairman; John F. McConnell, Colorado Springs; Lee Bast, Delta.

Special Committees, 1931-1932

Postgraduate Clinics: Maurice H. Rees, Denver, Chairman; O. M. Gilbert, Boulder; C. E. Harris, Woodmen; Nolie Mumey, Denver; G. E. Cheley, Denver.

Workmen's Compensation Affairs: A. S. Ceccini, Denver, Chairman; L. G. Crosby, Denver; W. R. Waggener, Denver; J. D. Carey, Fort Collins; Lanning E. Likes, Lamar.

Veterans' Legislation: J. W. Amesse, Denver, Chairman; E. B. Liddle, Colorado Springs; Crum Epler, Pueblo; L. H. Winemiller, Denver; Louis V. Sams, Denver.

Advisory to the School of Medicine: John S. Bouslog, Denver, Chairman; N. A. Madler, Greeley; C. O. Giese, Colorado Springs; C. E. Sidwell, Longmont; T. D. Cunningham, Denver.

State Registration Fee: R. W. Arndt, Denver, Chairman; Frank E. Rogers, Denver; T. E. Beyer, Denver.

Constituent Societies
Meeting Dates; Secretaries

Arapahoe County—Last Monday of each month; secretary, W. C. Crysler, Littleton.

Boulder County—Second Thursday; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, G. W. Larimer, Salida.

Crowley County—Second Tuesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, H. I. Barnard, Denver.

El Paso County—Second Wednesday of each month; secretary, W. A. Campbell, Jr., Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs, Colo.

Huerfano County—Third Thursday of each month; secretary, J. M. Lamme, Walsenburg, Colo.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, Walter C. Keller, Genoa.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, C. E. Honstein, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—First Tuesday of each month; secretary, H. M. Tupper, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each month; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Thursday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, R. J. Rummell, Lamar, Colo.

Pueblo County—First and Third Tuesday of each month; secretary, L. L. Ward, Pueblo.

San Juan—Second Saturday, January and alternate months; secretary, R. L. Downing, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Weld County—First Monday of each month; secretary, Tracy D. Peppers, Greeley, Colo.

WYOMING SECTION

President, F. L. Beck, Cheyenne — Vice President, J. L. Wicks, Evanston
President-elect, H. L. Harvey, Casper
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne
Councillors: G. P. Johnston, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shafer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan — R. H. Sanders, Rock Springs — E. L. Jewell, Shoshoni

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

The Next Legislature

ELECTION is not far away. It is soon to decide the complexion of the next state senate and house of representatives as well as a Governor to fill the vacancy caused by the death of the late Governor Emerson.

This Editorial in no sense is political—it's just the opposite. The politicians say "vote the ticket straight." We say "vote for the best man regardless of his political party." The whole world is thinking of a change. It's in the air everywhere, but the best interests of the general public can only be achieved by selecting the best men regardless of party creed.

It surely will be most unfortunate for Wyoming if in the next session of the legislature we do not have several regular medical men in that body. The last session was a disgrace to Wyoming. Had there been one or two of the recognized outstanding members of the medical profession in the legislature surely some of the bills passed never would have become laws. Happy will Wyoming be when, as we hope, some good level-headed doctors sit with and advise the men who make our laws governing the health of Wyoming and when a Governor big enough to recognize the value of scientific medicine sits in the executive chair and takes the advice of scientific medical men and not of quacks and irregulars. To the latter class there has been an open ear, and it is time we have a governor with fortitude enough to see through the smoke screen put out by quacks who rob the people under cover. Vote for real men and snow under the quacks and their agents.

It is up to the medical men of Wyoming to do all they can to assist any doctors who are up for election this fall. Get out and work. It is your duty as a citizen and your privilege as a doctor. We know the value that such men would be to the public welfare and let's do our duty. E. W.

Gonorrhea Ophthalmia in the Adult

GONORRHEA, uncomplicated, is often of serious consequence, but its ophthalmic complications are of even more vital importance. Since we do see these cases, an additional note of warning ought to be given by the ophthalmologists to the members of the medical profession to warn all patients suffering with a uretheral discharge to protect their eyes.

Somewhere the sign should be displayed constantly before the patients—"Keep Your Hands Away From Your Eyes." Two recent cases called our attention to the desirability of calling this danger to the minds of men who are treating cases of infection due to the gonococcus. This warning can not be made too plain. Most patients are so careless that unless a brick house falls down on their heads they will take all kinds of chances even when they are handling their weeping members.

Make it a rule to repeat every day—"Keep your hands away from your eyes"—to every patient you treat and you will save many eyes that are now being lost with this dangerous infection. E. W.

A New Symptom of Diaphragmatic Hernia of the Stomach

YE EDITOR in the December, 1931, number of Colorado Medicine, Vol. 28, Number 12, called attention to pain in the Adam's Apple as a symptom of diaphragmatic hernia of the stomach, and we also mentioned that pain developed around the heart region when we turned the left side of the body down.

Nowhere in the literature on diaphragmatic hernia of the stomach have we seen the following symptom mentioned. We have noticed in our own case that not only is it painful to try to sleep while turned on the left side of the body, especially when the stomach is fairly full, but that even after a good night's sleep, when we awaken apparently refreshed, if we turn with the left side down we develop a sudden drowsiness and a mild confusion of thought. Our brain seems to work more slowly, and the drowsiness grows into a sleep, even if the pain in the region of the heart becomes more severe.

As a possible explanation we suggest that there may develop an anemia in the brain caused by the pressure of the stomach upon the heart.

Had this occurred only a few times, we would not call the attention of the profession to this, but it always occurs in our case even after the best night's sleep. Thus we are convinced of its importance as a symptom of diaphragmatic hernia of the stomach.

E. W.

WYOMING NEWS NOTES

SHERIDAN COUNTY

The joint meeting of the Sheridan County Medical Society and the staff of the Sheridan Memorial Hospital was held Tuesday evening, September 13, as a dinner meeting in the hospital dining room.

The attendance was very good and an interesting meeting was the result. Dr. Maclin, Medical Director of U. S. Veterans' Hospital 86, located north of Sheridan, was a visitor.

Plans for better information as to the financial conditions of our patients were discussed and a special finance committee, consisting of Dr. Oscar L. Veach and Dr. C. L. Meredith, was appointed to investigate and report in one month. Dr. Earl Whedon reported a new symptom in cases of diaphragmatic hernia of the stomach, which he has personally experienced. Case reports occupied most of the meeting time and some very interesting cases were reported and discussed.

Dr. E. R. Schunk of Sheridan has been very seriously ill with an attack of angina pectoris, but has recovered enough to return to his home from the hospital.

Drs. E. R. Schunk, S. W. Johnson, W. A. Steffen, and Earl Whedon expected to attend the meeting of the Colorado State Medical Society at the Estes Park, but owing to the sudden sickness of Dr. Schunk the trip had to be given up.

LARAMIE COUNTY

President F. L. Beck of Cheyenne attended the Estes Park meeting of the Colorado State Medical Society and reports several Wyoming men also in attendance.

ALBANY COUNTY

Dr. Charles G. Pugh of Laramie was also at the Estes Park session and reports a splendid meeting.

Occupational Therapy

Drs. Ernest S. Marrette and Katherine M. Kohler substantiated the ideas advanced by Professor Eyre when they stated that a well-planned occupational therapy program provides definite work for the hands and the mind, but may not be sufficient for many patients. These patients will long for something constructive which will prepare them mentally as well as physically for their post-sanatorium life.

Persons leaving the sanatorium are handicapped physically to compete in the work-a-day world with the normal man. Because of the handicap, they naturally drift into those occupations which require a mental rather than a physical effort and must be prepared to meet the situation.

A report of considerable interest recently submitted to congress by Surgeon General H. S. Cumming deals with the prevention and control of the venereal diseases. During the fiscal year recently ended, the state health officers of forty-three states reported to the Public Health Service slightly more than a quarter of a million cases of syphilis and more than 150,000 cases of gonorrhea. These diseases as a class continued to exceed the number of cases reported during the year of any other single communicable disease with the exception of measles.

SURGICAL TRAGEDIES*

S. D. VAN METER, M.D.
DENVER

Surgical literature is replete with pen pictures of the dramatic, spell-binding scenes and incidents of the operating room, but accounts of the tragedies that come to every operator are too frequently left unrecorded, save in the memory of the operator, and are lost forever when Father Time calls him to his last reward.

This is unfortunate, because lessons of great value are often learned from the details of tragedy, as well as of triumph and success. Upon this premise it is my intention to relate a few of my own experiences which were, at the time, most tragic to me, although Fate was kind and the outcome was in no instance attended by death.

My first experience was in the case of a corpulent woman who had been in labor two days without progress. It was prior to the discovery of the x-ray, and no presentation could be made out by the ordinary methods of examination. The attending physicians had agreed that placenta previa was the most probable diagnosis. In this opinion I concurred, but was far from being certain of its correctness. The fetal movements and heart sounds having ceased I was convinced that the child was dead and that the uterus should be emptied. Anticipating the possible need for abdominal section I sent the patient to the regular operating department instead of the delivery room. After digital dilatation of the os which revealed the error of diagnosis of placenta previa, a foot was grasped and breech delivery attempted.

All went well until the shoulders passed the introitus. Maceration of the fetal tissues was conclusive evidence that the child had been dead some time. Traction applied to deliver the after-coming head, which did not come, caused the body to separate from the head. The great difficulty I had experienced in delivering the head of a macerated half-term fetus several years before was sufficient to bring gloomy visions of what might be encountered, but that was not all. The scene was suddenly changed. Inspection of the vagina revealed a large piece of omentum protruding through the os uteri. No time was lost in vaginal tamponage and opening of the abdomen. The decapitated head was removed from under the liver. There was a rent in the fundus of the uterus from cornua to cornua, about one inch of which was fresh and bleeding. What had evidently happened was spontaneous uterine rupture when labor began. From the history, that was fully two days before. The head probably passed through the rent immediately after the rupture took place and uterine contractions caused strangulation and death of the child. In the attempt to deliver the baby the neck was severed by the traction applied. The placenta was removed, the rent of the fundus repaired with interrupted catgut sutures, the abdominal cavity cleansed of clots and the celiotomy wound closed in the usual manner. A collection of sero-purulent material was removed by vaginal puncture eight days later. The patient made a good recovery, has enjoyed excellent health ever since the operation and is alive and well today.

The second tragedy happened in 1895 and was reported to the Colorado State Medical Society in June, 1896, under the title of "An Instructive Accident." Review of that report will show that I was prompted to present the case because of the conviction that often a lesson is to be learned by the unexpected and disappointing experiences even more than by our successes. The opening paragraph of that report is as follows: "Feeling that if more of the accidents which happen in the practice of surgery were reported, it would be more helpful and instructive than the multitudinous literature that we have on the successful operative cases, I have concluded to report the following one which happened in my hands last year."

The incident occurred in a case of urinary

*Read at the annual meeting of the Wyoming State Medical Society at Rock Springs, July 19, 1932.

retention following an operation for hemorrhoids. Not wishing to trust the catheterization of the patient to a new male nurse, I proceeded to demonstrate to him the proper method and had no difficulty in passing an ordinary soft rubber catheter. The patient experienced no pain from the passage of the instrument, but soon after the urine began to flow, the penis began to enlarge and was soon in a state of semi-erection. I observed that the catheter was, in spite of a firm grasp of the penis with my left hand, being drawn deeper and deeper into the urethra. By the time I could release my right hand, in which I was holding a basin, to catch the disappearing tip of the catheter it had passed beyond the meatus. In my consternation I glanced over the instruments on the tray and saw a pair of urethral forceps, which I thought some guardian genius had placed there to enable me to extricate myself from the dilemma. I eagerly grasped the forceps and attempted to catch the receding catheter, but to no avail. It evidently had passed rapidly into the bladder in spite of my efforts to prevent its doing so by increasing the grasp on the penis with my left hand. This may have aided instead of retarded the transit of the catheter.

You can imagine my chagrin, especially when a certain degree of personal conceit in the use of urethral instruments is admitted. It was like a thunderbolt out of the blue sky —a most disconcerting experience.

The only available instrument that offered me any promise of successful transurethral removal of the catheter was a Bigelow lithotrite. After an unsuccessful attempt to extricate the lost catheter with the lithotrite a suprapubic cystotomy was performed and the fugacious catheter was extricated and used as a retention catheter until the healing of the cystotomy wound was assured. It is useless to remark that it was securely anchored.

As it was a wholly unexpected and unheard of accident I promptly made careful search of surgical literature for similar cases, but found only one. That was in a paper by Dr. D. Hayes Agnew, the title and date of which have been lost.

In my report of the case it was suggested that, notwithstanding the small chances of such an accident happening during routine catheterization, the fact of its possibility justified the recommendation that all soft catheters should be made with a flange shoulder at the distal end, which would necessarily prevent their loss in the urethra under any condition.

In the many years that have followed, I have had no similar experience, although other doctors have told me of two that happened in their practice. My suggestion of a protective flange on soft catheters has not been heeded by manufacturers, but that one tragic experience was sufficient to place me ever on guard and never to forget the possibility of a soft catheter being drawn into the bladder when least expected.

My third and fourth tragedies were, in a way, duplicates and due to inefficient assistants. In neither instance could I be blamed for depending upon them to render the expected service, one of whom was the head operating room nurse and the other an experienced doctor. Both operations were hysterectomies in which it was decided to use Penrose cul-de-sac drains.

In number one, my first assistant had to be excused on account of a severe attack of renal colic. This made it necessary to ask the head operating room nurse to pass the usual grasping forceps into the vagina and through the punctured vault. I was operating in a hospital devoted almost entirely to children, and the nurse in question had received little or no training in general operative surgery. She insisted upon passing the forceps under vision of the parts and when its end caused bulging of the pelvic floor it was to the left of the center of Douglas' pouch. At my request the instrument was partially withdrawn and then carried upwards in the midline. The intervening tissues were incised, the forceps opened, the Penrose drain grasped, and drawn through the incised pelvic floor, supposedly through the vagina and beyond the introitus. The usual closure of the operative parietal incision completed the operation, and the pa-

tient made satisfactory post-operative progress.

The second day after the operation, the attending nurse stated that she was unable to catheterize her patient "because the vaginal drain was so tight she could not expose the meatus." On examination I was horrified to find that the Penrose drain was protruding from the urethra and not the vagina. The operating room nurse had, in her woeful lack of knowledge, deliberately passed the dressing forceps through the urethra instead of the vagina and had drawn the Penrose drain through the cystotomy incision into and through the bladder and urethra.

The hysterectomy had been performed for fibroids with associated pus tubes, consequently the outlook for disastrous infection was most discouraging to say the least.

The patient was placed under gas anesthesia; the vaginal vault was opened and fortunately the abdominal end of the drain easily located, grasped with forceps, and drawn into the vagina. The other end which was protruding from the meatus was then withdrawn very slightly and, after excision of the portion of the drain that had been exposed, was pulled back into the bladder by traction on the vaginal end. Before doing so. it was caught with a mosquito hemostat to prevent carrying it beyond the bladder, A self-retaining catheter was then inserted and left in the bladder. The Penrose drain was not disturbed for several days. It was then gradually removed through the vagina when sufficient time had elapsed for "walling off."

Those were anxious days, but every one concerned was gratified and relieved when nothing happened but an uneventful recovery with not even a cystitis to mar the picture.

In the second case the attending physician was asked to pass the dressing forceps. Nothing was discovered out of the ordinary until the fifth or sixth day after the operation, when the attending nurse announced that the "rectal drain had slipped back into the bowel." Examination revealed that the forceps had been inserted through the anus and a recto-vaginal-peritoneal opening had been made, through which the Penrose drain had been withdrawn. The drain could be felt in the rectum and seen passing through the vaginal vault.

Again unpleasant visions of dire disaster arose. Those of recto-vaginal fistula and other possible complications were most discomforting. As sufficient time had elapsed for "walling off" the drain was easily removed through the anus. Prompt recovery took place without the development of a recto-vaginal fistula or other untoward sequelae. It is unnecessary to state that in subsequent cases I have been more than particular to whom I have intrusted the passage of forceps in similar operations.

I have always considered intravenous medication and especially transfusion as a major procedure. The procedure is one fraught with danger and in which careful technic is imperative. My experience in the case selected as tragedy No. 5 indelibly impressed the correctness of this viewpoint upon my memory.

The patient, an otherwise healthy woman in her late thirties, had been curetted five times for metrorrhagia with only temporary relief. The last operation I had performed myself by hysterotomy to make sure that nothing in the way of a small fibroid would be overlooked. None, however, was found. The endometrium presented a typical picture of hyperplastic endometritis. As it was curetted under vision I am positive of the thoroughness of the operation. I removed the appendix on general principles and the patient made an uneventful recovery. For six months the menstrual flow was normal. It then gradually became more and more profuse and within another six months she had lost so much blood that her hemoglobin was down to 38.

Notwithstanding her profound desire for children she finally gave up in despair and concluded to submit to a hysterectomy as a last resort. With the experience of her multiple operations and being a trained nurse she knew a good deal about surgical technic and suggested that a blood transfusion would perhaps lessen the time of pre-operative preparation and asked that one or more

be given. The suggestion being logical, her request was granted and the transfusion ordered.

Supposedly careful typing of the blood of the donor and patient was made. Five hundred c. c. of citrated blood was prepared and the transfusion begun. By the time fifteen c. c. of blood had passed into the vein a severe reaction set in and the procedure was discontinued. The hemolysis and shock that followed were extreme and the patient's life hung by a thread, as it were, for several days. A hemolyzed serosanguineous fluid oozed from every mucous membrane, and the visible parts of her body ranged from jet black to green in color. Melonotic stools persisted for some time. After days of suspense she began to show signs of improvement, and the picture of impending dissolution was gradually replaced by one of hopeful recovery. A recheck of the blood of the donor and patient revealed a gross error had been made in the typing.

Within six weeks she had regained sufficient strength to leave the hospital. The hemoglobin had risen to 80 (Dare) and all signs of hemolysis were gone. She had menstruated and the flow was fairly normal both in quantity and duration. She continued to improve and in a few months fully recovered her health.

It is now ten years since the tragedy, and while the patient never realized her hope for a baby, she has had no return of the metrorrhagia, has passed through a normal climacteric and is in perfect health today. It is needless to say that the planned hysterectomy was never performed.

The unintentional administration of the mistyped blood in some way cured her metrorrhagia. "One swallow does not make a summer," but this case suggests the possibility of small doses of mistyped blood being used advantageously in the treatment of so-called essential metrorrhagia and hematuria.

To be satisfied with the explanation of the end result in this instance as being due to mere introduction of a foreign protein into the circulation is insufficient. What we have yet to learn about what takes place in the blood stream under such conditions is beyond conception and offers a wonderful field for profitable research.

The sixth and last tragedy took place while attempting to aspirate a pleural effusion following an operation for a ruptured, gangrenous appendix.

A secondary sub-hepatic abscess of large size had been evacuated some three weeks prior to the development of the pleural effusion and was still draining when a successful aspiration of one pint of sterile fluid from the right pleural cavity was done. Two weeks later it was evident that the effusion had reaccumulated, and I decided to aspirate the fluid a second time. On insertion of the trochar, only a small amount of fluid passed into the vacuum bottle. Further exhaustion of the air was attempted with the ordinary metal suction pump when it was noticed that the fluid ceased flowing. The pumping process was continued, hoping to clear the supposed stoppage of the cannula. In a few moments the patient gave a sudden gasp, fell back on her pillow, and an extensive emphysema of the cervical subcutaneous tissues was observed. The cannula was removed immediately and on inspection it was seen that the pump had been attached in reverse. Instead of exhausting the air from the bottle, we had been forcing it into the pleural cavity and thereby performing an unintentional pneumo-thorax. The pressure evidently reached the point sufficient to cause rupture of the parietal pleura.

Once more gloomy visions of what was to come of this tragedy arose, and several anxious days followed. But again Fate was on my side. The emphysema disappeared in a few days and the feared cellulitis and other possible complicating sequelae not only did not develop, but the pneumo-thorax apparently caused the pleural effusion to be rapidly absorbed, and in a short time all physical signs of pleural pathology were gone.

In conclusion allow me to express the hope that these tragic experiences may teach lessons not to be learned by ordinary means, an prevent the occurrence of similar tragedies in the practice of other physicians.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V October, 1932 Number 10

SLEEP, so necessary to human existence, and especially so to the tuberculous, depends upon the individual's ability to relax. Relaxation in turn depends at least in part upon wholesome physiological fatigue. In recent issues of the Journal of the Outdoor Life there are three articles which summarize the latest scientific thought on this subject. Dr. Kleitman is Associate Professor of Physiology at the University of Chicago; Dr. Jacobson is Assistant Professor of Physiology at the University of Chicago; and Dr. Rice is Professor of Epidemiology at the University of Indiana School of Medicine. A study of their articles will repay the physician who is dealing with tuberculosis or any other type of "nervous" patients.

SLEEP, RELAXATION AND FATIGUE

Sleep in Tuberculosis

Sleep is generally looked upon as the most complete form of rest and is therefore of paramount importance to the tuberculosis patient. The sleeping person takes no notice of events and does not respond to changes in his environment.

The position of the body in sleep is of relatively little importance, since no position is held for any great length of time. The average time between stirs as determined by actual tests is about 10 minutes and the longest about one hour. Since these movements are of very short duration the total time one spends in moving about probably does not exceed five minutes in a night. Sleep, then, may be looked upon as a period of almost complete muscular inactivity.

During sleep there is a decrease in activity of the heart, which leads to a lowering of the arterial blood pressure. These in turn decrease the danger of hemorrhage in disease. The absence of disturbing external influences also has a beneficial effect upon the circulation and respiration.

Sleep decreases the basal metabolism and tends to reduce the temperature. Muscular activity results in the production of large quantities of heat, which cannot be dissipated as fast as they are produced. This leads to a temporary rise in temperature. Through rest in bed and sleep one can hold the temperature at a lower level.

Practically all of the glands in the body secrete less during sleep than during the waking state. A notable exception is found in the sweat glands, a fact which is well known to the tuberculous. The cause of increased secretion of sweat in sleep probably represents an attempt of the body to get rid of an excess of heat accumulated because of insufficient ventilation of the space between the skin and the bed clothes and also of the bedroom.

There is decreased wear and tear of the living matter of the body during sleep and a consequent upbuilding, which is especially beneficial to the tuberculous. Under these conditions it is desirable to increase the duration of sleep as much as possible.

Everything tending to cut out sensation favors the onset of sleep. The newborn baby sleeps for eighteen to twenty-four hours a day, waking up every four or five hours because of hunger or discomfort, but such a baby is blind and deaf for the time being and experiences none of those sensations that may disturb an adult. Sound sleep is promoted by regular hours and regular habits. Worry, fear, anger or undue excitement may produce restless sleep because they interfere with relaxation. When one cannot sleep, it is well for the sufferer from insomnia to give up trying and to resign himself to lying awake. It should be noted that the decrease in muscular, circulatory, respiratory and metabolic activities occuring in sleep is largely due to rest in a horizontal position, and lying quietly awake, therefore, is nearly as good as sleep.—*Sleep: Its Value in Tuberculosis, N. Kleitman, Ph.D., Jour. of the Outdoor Life, Feb. 1932, p. 89.*

Relaxation in Tuberculosis

Observation of tuberculous patients during their daytime rest-hours generally reveals incompleteness of relaxation. Patients confined to bed for a long time show various forms of restlessness, particularly in the form of excessive unproductive coughing. Unrest shows itself also in the form of so-called mental symptoms or "nervousness." A more fitting phrase is "high nerve-tension."

In such so-called nervous symptoms, there is always contraction of muscles, which occurs when the nerves leading to and from the muscles are in action. These muscular contractions, no matter how slight, can be measured and charted by a galvanometer.

When muscles contract, movements occur in tendons, joints and skin, producing sensations in these several regions, which may be grouped together under the name "Proprioceptive sensations." This term may be used to include all sensations aroused by changes within the body of the individual in contrast with those aroused by changes without, such as sound or light. Patients may be instructed to relax, and as they do so there is a corresponding diminution of proprioceptive sensations. Progressive relaxation brings about not merely muscular, but also mental rest.

Merely advising a patient to relax does not accomplish this desired end. He must be instructed just as he would if he wished to learn mathematics or golf. The patient who suffers from restlessness, insomnia, excessive mental activity or emotion, or from spastic states does not learn to be relaxed in a week or a month. A prolonged period of training is required during which the patient gradually learns to recognize tenseness, even if slight, and acquires the ability to relax until relaxation becomes automatic. In this way he learns also how to avert fatigue.—*Relaxation and Pulmonary Tuberculosis, Edmund Jacobson, Ph.D., M.D., Jour. of the Outdoor Life, Apr. 1932, p. 209.*

Fatigue, Good and Bad

There are easily a half dozen physiological states that are commonly called fatigue. Yet none of them is the real thing in the strict sense of the word, such as the experimenter in physiology produces when he stimulates a muscle until it cannot act any longer. Lack of muscular exercise, with its consequent stagnation of blood and lymph may be one false form of fatigue. Another may be laziness or a similar state brought about by suggestion. Or boredom may be confused with fatigue. A man waking from a sound sleep may think he is tired out, but the process of stretching, yawning, or bathing soon drives his so-called fatigue away.

Fatigue may be described under two forms, physiological fatigue and pathological fatigue.

Physiological fatigue is one of the greatest boons in human existence. It results from the expenditure of muscular and mental energy in doing a task which one feels is worth while, and from which he receives a resultant satisfaction.

Pathological fatigue, however, may be positively devastating in its effects. The pathologically tired person is "to tired to eat," "too tired to sleep," "too tired to get out and have a good time." Nagging, scolding, and complaining, the pathologically tired person makes his or her home and family miserable. Such a state may be produced by many different things or combinations of things such as disease, worry, dissatisfaction or discontent with one's work or life and its outlook. Or, the task on which the individual is working may be as a tyrant crushing the life out of its victims. And again, the task may be unsuited to the particular worker.

It is exceedingly important that we should be able to recognize as early as possible the evidences of physical breakdown resulting from any of these or other forms of overstrain. Most of these signs are simply those of continued pathological fatigue. The following suggestions are offered:

(1) If you are too tired to enjoy your dinner at the end of the day;

(2) If you cannot relax after leaving the job;

(3) If you cannot sleep at night;

(4) If you despise your work and dread to begin in the morning;

(5) If you are getting cross and impatient;

(6) If you are jumpy and crack up easily when the unexpected happens;

(7) If you are losing weight without apparent cause;

(8) If you are losing your snap and pep;

(9) If you are worrying about things you cannot help;

(10) If you cannot laugh;—

It is time to make a change.

Fatigue—Good, Bad and Indifferent, Thurman B. Rice, M.D., Jour. of the Outdoor Life, May 1932, p. 273.

Doctor! You Are Invited to Attend

THE OKLAHOMA CITY CLINICAL SOCIETY'S

Third Annual Fall Clinical Conference

October 31 to November 4, 1932

TWENTY DISTINGUISHED GUEST LECTURERS:

DR. E. H. CARY—Dallas (Ophthalmology)
DR. HUGH YOUNG—Baltimore (Urology)
DR. JOHN LOVETT MORSE—Boston (Pediatrics)
DR. W. WAYNE BABCOCK—Philadelphia (Surgery)
DR. WARREN T. VAUGHAN—Richmond (Allergy)
DR. WM. ENGELBACH—New York City (Endocrinology)
DR. LEROY SANTE—St. Louis (Obstetrics)
DR. LOUIS J. HIRSCHMAN—Detroit (Proctology)
DR. HENRY H. KESSLER—Newark, N. J. (Industrial Surgery)
DR. E. SPIEGEL—Vienna, Austria (Neurology)
DR. DONALD BALFOUR—Rochester, Minn. (Surgery)
DR. ELLIOTT G. BRACKETT—Boston (Orthopedics)
DR. FREDERICK A. WILLIUS—Rochester, Minn. (Cardiology)
DR. RALPH C. BROWN—Chicago (Gastro-enterology)
DR. C. J. BARBORKA—Chicago (Internal Medicine)
DR. WILLIAM V. MULLIN—Cleveland (Otoloryngology)
DR. HENRY E. MICHELSON Minneapolis (Dermatology and Syphilology)
DR. GEORGE GRAY WARD—New York City (Gynecology)
DR. GERALD B. WEBB—Colorado Springs (Chest)

GENERAL ASSEMBLIES ROUND TABLE LUNCHEONS EVENING SYMPOSIA
POST-GRADUATE COURSES COMMERCIAL AND SCIENTIFIC EXHIBITS

Registration Fee of $10.00 includes all above features.

For further information address
Secretary, 301 West Twelfth Street, Oklahoma City

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. R. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D., Univ. of Colo. School of Medicine and Hospitals, Denver

Coming Meetings:

American College of Surgeons Annual Meeting—St. Louis, Missouri, October 17-21.

Colorado Hospital Association Annual Meeting—Colorado Springs, Colorado, November 8-9.

GROUP NURSING

ELIZABETH HARRIS, R.N.

Shirley Titus, director of nursing at University School of Nursing at Ann Arbor, Michigan, gave a paper on Group Nursing at the Biennial Convention at Milwaukee in June. I have been asked to report on this paper.

"Group Nursing" has become a popular term during the past few years and is very often used incorrectly. In the strictest sense of the word the term applies only to that system of hospital nursing wherein patients are transferred to a special ward unit for the purpose of being grouped in such a way that they might receive nursing care from a graduate nurse at a lower cost than is usual for the service. In other words, in "group nursing" units, two patients will share the services and the fee of the graduate nurse assigned to their care. Unfortunately, the expression "group nursing" is applied to any and every plan of nursing the hospital sick by graduate nurses—with the exception of "the special nurse" system.

Each year more hospitals are employing graduate nurses to render bedside care to their sick. This new departure in the hospital nursing world is not a temporary arrangement to meet a passive need. Certain reasons seem to indicate strongly that this movement will prove to be both widespread and permanent. These reasons relate to the general trend in hospital economics and administration. This new era in hospital economics and hospital administration will stimulate and promote the growth of these new systems of nursing that are just now becoming known as group nursing and general duty nursing. These probably will not remain the only systems. New schemes and plans will be worked out as more hospitals are compelled by force of circumstances to give up the old idea that the entire load of the hospital sick shall be carried by student nurses. Our effort to shorten the hours of the working day for the student nurse, because she is a student and in order that she may have most of her classes during the day and not be too tired at night to study, is one reason why hospitals are supplementing this student body with graduate service.

What will be the characteristics of this new era in hospital economics and administration? Two outstanding characteristics that will mark it out from the hospital world of today will be: first, the great size of the hospital—it will be an era of big hospitals; and second, hospitals will be administered by individuals thoroughly trained in the technique of modern business. The ever mounting overhead is already compelling all hospitals to look to the business world for aid and advice. We are leaving behind us the idea that the hospital is not a business venture because it happens to be a non-profit organization. The hospital will have to close its doors in the near future unless run on a thorough-going business order.

If the hospital looks to the business world, what will it find? Modern business rests on three principles:

1. Large scale production.
2. Very small profit per article.
3. Meticulous examination and scrutiny by trained and scientific minds of every operation necessary in the manufacture and selling of the finished article; cost accounting and cost an-

(Continued on Page Sixteen)

CAMP SURGICAL AND SEMI-SURGICAL SUPPORTS

Maternity Post Operative
Convalescing and Ptosis Supports
Abdominal Belts
Sacro-Iliac Binders, Orthopedic Back Splints

Mrs. J. M. Blinn Pfister, *Nurse*
SURGICAL CORSETIERE
Phone Main 7530
Hours, 7 a. m. to 1 p. m.
1515 Glenarm St. Denver, Colo.

SPECIAL PRINTING For PHYSICIANS

8½x5½ letterheads, statements and envelopes, professional cards and prescription blanks, 1,000 $2.

5,000 of either, $7

Perfect job on high grade bond paper

Address

David Nichols & Company
KINGSTON, GEORGIA

The LAW of AVERAGES
as applied to
GOOD INVESTMENTS
requires these attributes:

1. Distribution of economic interests.
2. Distribution geographically.
3. Thousands of investments.
4. Steady flow of maturing obligations.
5. Freedom to purchase at most opportune time.

IS THE LAW OF AVERAGES WORKING FOR *YOU?*

Each of the five points will be discussed in future issues of this publication.

GEORGE W. MATTSON
Specializing in estate conservation
KE. 6495 201 Republic Bldg.



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721



WOODCROFT HOSPITAL—PUEBLO, COLORADO

Woodcroft Hospital was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent

H. A. LaMOURE, M.D., Medical Director **F. M. HELLER, M.D., Neurologist and Internist**

P. A. DRAPER, M.D., Resident Physician





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course

Saint Francis Sanatorium

Denver, Colorado

Attractively located on an elevation of 5200 feet with an extensive view of the snow-capped Rockies. Within easy access to the city of Denver by bus or carline. Rooms steam-heated with running water and connecting baths. Special attention given to bed patients. Excellent nursing care, service and food. Professional service—Ultra Violet lamp, artificial pneumo-thorax.

RATES $50.00, $55.00 AND $60.00 PER MONTH
Exclusive of medical attention

Operated by the Sisters of Saint Francis

325 KING SPruce 4268 DENVER

THE BOULDER-COLORADO SANITARIUM



A MEDICAL INSTITUTION employing all curative agencies accepted by rational medical practice. Thoroughly equipped Hydrotherapy, Dietetic, Physiotherapy and X-Ray Departments. Ideal Location. Excellent Service. Reasonable Rates. Especially adapted to the care of convalescents. Battle Creek Methods.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING



A QUIET, restful nook for elderly ladies. Modern conveniences. Artesian water. Fine shade and shrubbery. Day and night nurses. Mild mental cases invited. No tuberculars. Rates very reasonable.

THE McCLELLAND HOME

920 Griffith Lane, Arvada, Colo.

Phone Arvada 533



INVALIDS
ELDERLY PEOPLE

Desirable Environment

REAL HOME CARE

GRAY and PALMER

147 W. Irvington SPruce 5758

GROUP NURSING

(Continued from Page Ten)

alysis are the wonders of the modern business world.

Already hospitals are following in the general trend of the business world. For example, they are becoming more interested in the reduction of overhead by plant enlargement. What state does not have its large medical centers—centers that find their counterpart in the "merger" of the business world. And is there not a movement to build larger and better hospitals? The small hospital remains with us, but will it continue? Will the improvements in rapid transit not affect the small community hospital? Will more and better roads, more and better automobiles, more and better aeroplanes encourage the growth of small hospitals? Probably not. This movement toward the building of the very large hospital will profoundly affect nursing. It does not seem probable that the growth of the nursing school can possibly keep pace with the hospital bed expansion.

Group nursing, general duty nursing, and other systems will gradually be resorted to as the old system of nursing entirely by students breaks down. Each year will find more hospitals compelled to resort to these newer systems. It behooves every nurse, therefore, to think seriously about the problems involved in the new order of things. While the task of setting up any new system is the work of the director of nursing, the success or failure will depend partly on the private duty nurse. It offers a challenge to the entire private duty group. If the problem is not settled to your liking, you have no one to blame but yourself, lest you give it your serious consideration and prepare yourself to render proper advice and assistance relative to the organizing of these systems at any time. These new systems are not easily instituted. Before any hospital can possibly set up one of these new systems, and attempt to operate it, it is imperative that the problems involved be first worked out carefully on paper. The more care thus exercised in working out the prob-

HAGBERG'S
Convalescent Home

Located in the residential section of the city, adjacent to Cheesman Park. Special attention to diets—tray service—nurses' care.

Reasonaable Rates

1212 Vine Street Denver, Colorado

The Cocks-Clark Engraving Co.
Illustrators — Designers
Photo Retouchers and Engravers
Tabor 6244
2200 Arapahoe St.
Denver

ANN ROWLAND HOME

A QUIET, centrally located private home where elderly people are welcome. Sensible meals, appetizingly served. Practical nurse renders every assistance. Not an institution—not a sanitarium—just a home with home comforts.

1579 EMERSON TAbor 0027

For Old Folks
Mrs. Worrell's Home

Where the rate is low enough to be within the means of the most economical.

95 BANNOCK ST. DENVER, COLO.



The MATCHETT

1101 GAYLORD ST. YOrk 5444

A refined, exclusive home for old people, convalescents and mental cases. Competent nurses day and night. Beautiful rooms, well ventilated and comfortable. Reasonable rates in accordance with service and care.

NOT AN INSTITUTION
Established Over 30 Years

MRS. CAROLINE M. MATCHETT
Formerly Mrs. Caroline Gregerson

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

« CAMP » SURGICAL SUPPORTS

Competent Fitter

SYBIL CASSELL

Ethical cooperation with the medical profession.

PRINTING

in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

lems satisfactorily, the greater the probabilities that the system will prove satisfactory to all concerned.

The first step is to get definite decision from the Board of Trustees as to the kind or quality of nursing service they desire. Do they wish an excellent or a fair nursing service, or to thin it to the greatest possible degree? Excellent, or grade A, is based upon a ratio of 1 to 3 or 4 per twelve hours—that is, one nurse to every three or four patients for the twelve hour period. Fair, or grade B, is based upon a ratio of 1 to 5 or 6. Grade C, minimum service, is based upon a ratio of 1 to 6 or more.

The board must take into consideration the character of the hospital, its financial status, the kind of patient cared for, etc., before they can make any decision relative to the kind of nursing service they desire and think essential for their hospital.

The next step is to ascertain the quality (based upon the numerical ratio of nurse to patient) of the nursing service in actual operation in the hospital at the time. One warning here: It is not sound to take the gross number of nurses on duty in the hospital and compare with the number of patients. Only those actually assigned to bedside care of patients should be included in the count. Those assigned to special service, as operating room, diet kitchen, and surgical supply room, should not be counted. The average board of directors and hospital director can often tell you the number of nurses on duty, but few know how many are actually nursing the patients.

After the board decides what kind of nursing service is desired and what the actual numerical ratio of nurse to patient is in their institution, they can decide how many graduates it will be required to supplement their present nursing service.

The question then arises of what system shall be used—group nursing or general duty? The group nursing system requires about twice as many nurses as does the general duty system (the distribution is usually 1 to 2 for group nursing, and 1 to 4 or more, for general duty). The group nursing system differs widely from the general duty

DIGITALIS THERAPY DEMANDS UNIFORMITY

THE Lederle Tablets of Digitalis were perfected as a result of six years' experience in the Cardiac Clinics of Greater New York with tablets of standardized digitalis leaf having a potency of 1 cat unit in 1½ grains of powdered leaf.

Only digitalis leaf which has been clinically demonstrated to possess *uniform activity*, is used in the preparation of Lederle Digitalis Tablets.

The intravenous method of Hatcher and Brody used by the Lederle Laboratories directly measures the cardiac effects of the drug.

Digitalis Tablets Lederle are supplied in packages containing 100 tablets (5 tubes of 20), in three sizes: ½ Cat Unit (¾ grain*), 1 Cat Unit (1½ grains*), 2 Cat Units (3 grains*).

*The comparison of the cat unit of digitalis to the grain of powdered digitalis leaf refers to the leaf selected as described above for the Lederle product namely, that one and one-half grains of the powdered leaf assay one cat unit. In the above table, grains are stated only as an approximate guide to the physician who has heretofore based his dosage on weight or volume.

Literature on Request

Distributed by

HEALY & OWENS
1400 Larimer Denver, Colorado

LEDERLE LABORATORIES INC.
New York



PRESCRIBE KNOX SPARKLING GELATINE IN DIETS FOR DIABETES LIQUID and SOFT FEEDING REDUCING and ANEMIA

KNOX is pure, granulated plain gelatine with 85-86% protein content. Free from flavoring, coloring or sweetening—therefore combines safely and perfectly with fruits, vegetables and other foods for all diets.

KNOX *is the real Gelatine*

Data and Recipe Books on Request

KNOX GELATINE LABORATORIES, 415 Knox Ave., Johnstown, N.Y.

Solving the problem of MALNUTRITION *in children who won't drink milk*

MANY children dislike milk, refuse to drink it — with the result that they are underweight and poorly developed.

For such children—for *all* growing children—Cocomalt in milk is recommended. Not only do children love its delicious, chocolate flavor; but, mixed with milk according to directions, *it adds 70% more nourishment (food-energy)*. It provides *extra* proteins, carbohydrates and minerals (calcium and phosphorus).

Cocomalt contains not less than 30 Steenbock (300 ADMA) units of Vitamin D per ounce. This rich supply of Vitamin D makes possible a more efficient utilization of the calcium and phosphorus furnished by Cocomalt and milk for the formation of strong bones, sound teeth and sturdy bodies. High in food value, low in cost. At grocers and drug stores in ½-lb., 1-lb., and 5-lb. size.

Accepted by the American Medical Association
[COMMITTEE ON FOODS]

Cocomalt is accepted by the American Medical Association, Committee on Foods, and is licensed by the Wisconsin Alumni Research Foundation under Steenbock Patent No. 1,680,818.

Free to Physicians

We will be glad to send a trial can of Cocomalt *free* to any physician who sends his name and address to R. B. Davis Co., Dept. 43S, Hoboken, N. J.

Cocomalt

Cocomalt is a scientific food concentrate of selected cocoa, barley malt extract, partially defatted milk, sugar, eggs, flavoring and added Vitamin D.

ADDS 70% MORE NOURISHMENT (FOOD-ENERGY) TO MILK
(Prepared according to label directions)



MILK
Helps Protect Against RICKETS

Eminent scientists, such as

DR. MALLANBY, London, England

DR. HENRY SHERMAN
Columbia University, New York City

have proved that diets are more effective in arresting and preventing tooth and bone defects if they contain liberal amounts of milk. Milk is richest and most available source of phosphorus and an important though not entirely adequate, source of vitamin D.

At Your Door or at Your Store

The
CARLSON-FRINK CO.
1230 13th St. MAin 0111

system. Let us consider for a moment a few of the differences between the two systems.

First, there is a difference in the objective. Group nursing is designed primarily, if not exclusively, for the purpose of reducing the price of special service. It does not improve or enrich the general nursing service of the general ward units. The objective of the general duty nursing is the enriching or improving of the general nursing care of all the patients in the hospital by establishing a better numerical ratio of nurse to patient. In considering these two systems the board must decide whether they wish to encourage special service by reducing its cost or whether they wish to improve the general nursing care throughout the hospital. A good general nursing service distinctly curbs and discourages the employment of "special nurses," while poor general nursing service often makes patients who can ill afford it feel they must have special service. Group nursing presents a difficult architectural and admitting department problem, but little or no financial problem, for the hospital to solve. General duty, on the other hand, presents no architectural and no admitting room problem, but does present a complex financial problem for the hospital to solve. The general duty nurse can be assigned to any unit in the hospital. She may work side by side with the student nurse, or she may be substituted for the student nurse in any unit. The group nurse can be used only in a limited way. She can only be assigned to one or two units where the patients are grouped to receive this particular and special kind of service. The group nurse is a "special nurse" who is doing "divisional special service." Her rate of pay is lower than the regular special nurse, because she is employed by the hospital on a monthly basis and given steady, uninterrupted employment. Thus she can afford to sell her services lower because she does not have to bear the financial loss which always faces the worker in a seasonal occupation. Group nursing cannot be used in every hospital because it requires special architectural layout—namely,

Colorado State Medical Society Library

and

Medical Society City and County of Denver Library

COMPRISE JOINTLY

Total number of volumes.....25,763
Total number of portraits..... 418
Number of periodicals received in 1931:
American, 143 Foreign, 91 Total, 234

SERVICE TO ALL MEMBERS OF THE COLORADO STATE MEDICAL SOCIETY

1. *Loans by Title:* Upon request, any book or journal will be loaned for one week.
2. *Reference Service:*
(a) Upon request, literature on any stated subject will be found and forwarded.
(b) As received, current journals will be searched for articles on a stated subject and appropriate issues forwarded to those members requesting this service.
3. *Journal Service:* Two hundred and twenty-eight medical journals are received regularly. ANY MEMBER OF THE STATE MEDICAL SOCIETY may select a journal or a number of journals which he would like to receive regularly, and these journals will be loaned for one week.

BORROWERS PAY ONLY SHIPPING CHARGES.

"WHAT CAN WE DO FOR YOU?"

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.

Meeker Home

* * *

A Home and School for Sub-Normal Children

* * *

Study rooms, playgrounds, fruit and vegetable garden, dairy and home influences.

Rates very reasonable.

LYDIA G. MEEKER, Director
5187 Lowell Blvd. GAllup 4849
Denver

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

MERCUROCHROME
220 SOLUBLE
in
OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

a private corridor with connecting rooms. Any hospital can adopt the general duty system as it does not require a special architectural layout. Group nursing presents no financial problem to the hospital for the entire cost of the service can be charged back directly to the patients enjoying that service.

Since the general duty nurse takes the place of the student, the hospital does not feel it can make an extra charge to the patient. This attitude discourages general duty nursing, for the hospital sees another expense added to its already overloaded budget. This is why group nursing finds greater favor in the eyes of the hospital administrators. The problem resolves itself into how much nursing service can or should be offered by the hospital under the present system where the room revenue is expected to cover the general nursing.

Should we attempt to furnish grade A or grade B nursing service for the general run of patients in the hospital? Should we continue to encourage "special nursing" and "group nursing" and be content with thin floor service? Would it not be better perhaps to offer a good floor service even though at an increased cost to the hospital? Could we not distribute this cost over all the patients by adding a nominal daily charge for nursing service?

The problem is an interesting and a serious one. We need fine cost-accounting systems and a proper cost analysis made on departments and schools of nursing before we can grapple with such problems. With the old system of student nurse service breaking down, how shall we meet the problem? What is best for the patient?

Two other important points that must not be neglected are: first, terms of employment; and second, taking up the "slack." Under terms of employment, the hours of duty and salary for these nurses under the new systems can be settled only on the basis of what hours and salary the private duty nurse in the local community is enjoying. This should be as attractive and desirable as private duty. The institutions are shortsighted that attempt to set up general duty or group nursing on a basis whereupon

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically — Limited Class Now Forming
Special classes for Nurses. — Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R — *Elna Hoagland, Pres.* — 3762 High St.

Conway's FLORAL SHOP
1064 SO. GAYLORD
PEarl 0622

When you are in need of any floral designs to send as a final tribute, we are in position to fill your orders.

Your patronage is appreciated.

AIR TRANSPORTATION

Safety — Comfort — Speed

Waco and Stinson Aircraft

READY TO GO—WHEN YOU ARE



WESTERN FLYING SERVICE

Municipal Airport, Denver. Ph. York 8273

SANITARY SPECIALTIES COMPANY

2819-21 Larimer St. — *Manufacturers and Jobbers* — *DENVER, COLORADO*

OBSTETRIC NAPKINS
CRESOLIS COMPOSITUS
DEODORANTS
FLOOR WAXES

SANITATION MEANS HEALTH AND EFFICIENCY

NEUTRAL CLEANING SOAPS
INFANT'S LIQUID SOAP
LIQUID TOILET SOAPS
GREEN SOAP U. S. P.

HOSPITAL SOAP EQUIPMENT

"Everything for the Sanitation and Maintenance of Hospitals and Institutions"

Distinctive—

UNIFORMS and SERVICE LINENS

CORRECTLY TAILORED FROM FINER FABRICS

Let Us Show You Our New Outstanding Values

E. F. STEPHENSON COMPANY

232 Cooper Building—at 17th and Curtis
Telephone MAin 7226 — Denver, Colorado

every time the hospital is busy the system can be set up, and when its census is low, the system can be abandoned. Unless the system will give permanent uninterrupted service, the nurse will be exploited and the system will become very unpopular in a short time. The hospital could be protected from financial loss during the low period by using general duty nurses as "specials" during that time.

The main protection of hospital is gained through a most painstaking and careful analysis of its habitual daily and monthly occupation over several years. "Slack" periods and high census periods do not come as erratically as would at first appear. With the usual monthly turnover in the group nursing or general duty nursing staff, plus the fairly reliable figures one can secure on expected monthly occupancy, the size of the nursing staffs can be fairly well controlled in relation to the number of patients to be nursed.

Erratum

THE EDITOR regrets that space precluded the inclusion of the following references for the article: "History of Diet in Fever," by Dr. Harry Gauss, published in last month's Colorado Medicine:

References

Garrison, F. H.: History of Medicine. Phila.: W. B. Saunders Co. 1922.

Gauss, H.: Clinical Dietetics. St. Louis: C. V. Mosby Company. 1931.

Shaffer, P. A., and Coleman, W.: Protein Metabolism in Typhoid Fever, Arch. Int. Med., 1909, 4, 538.

EDITORIAL NOTES AND COMMENT

(Continued from Page 392)

Social Insurance Undermines National Character*

Parasitism is today the corroding canker of modern civilization and anything which favors its growth and dissemination should be unequivocally condemned and most vigorously opposed.

The proponents of Compulsory Health Insurance or National Insurance, as it is called

*One of a series of articles on Social Insurance, by Dr. Edward H. Ochsner.



Enjoy the Advantages of ARISTOCRAT Service

Matched Pullmans
Solarium Lounge Car
Radio
Buffet and Soda Fountain
Valet Service
The Aristocrat Shop
Reclining Chair Car
Equipped with Radio . . Seats Free
Shower Bath
Barber Shop

LV. DENVER . 4:30 P. M.
AR. LINCOLN . 5:20 A. M.
AR. OMAHA . . 6:55 A. M.
AR. CHICAGO 7:45 P. M.

Burlington Route

F. W. JOHNSON, General Agent
901-17th Street . . . DENVER
PHONE KEYSTONE 1123



INSULEX
GYPSUM INSULATION

Nine years of successful insulating service to over 3,000 Denver homes.

The Best Insulating
at a surprisingly low cost.

Estimates gladly given.

INSULATING PRODUCTS CO.
3220 MARIPOSA ST. GAllup 5845 DENVER, COLO.

MODERN AMBULANCE SERVICE
for MODERN NEEDS



AMERICAN AMBULANCE CO.
YORK 0070 • 1860 DOWNING ST • DENVER, COLORADO

STATIONERY
and
PRINTED FORMS
of ALL KINDS

PRINTING

PROGRAMS
REPORTS
YEAR BOOKS
CATALOGS

Over 25 Years of Satisfactory Service

THE MILES & DRYER PRINTING COMPANY
1936-38 Lawrence St. DENVER Telephone KEystone 6348

SOAPS Gets It TRADE MARK POWDERS

INSTITUTIONAL SANITATION

Hospitals, sanitariums everywhere find that "GETS IT" in its various forms can be relied upon to clean and purify any and every variety of surface in and out of doors.

PAINT CLEANER—For washing woodwork of all kinds, linoleum and floors. Porcelain, white enamel, stoves and frigidaires.

WHITE CREAM SOAP—Made of the purest of material. Will not harm hands. This soap is used by The City and County of Denver for washing painted walls, scouring floors, stained and spotted furniture.

Medicated Hand Soap, Scouring Soap Powder, Auto Soap, Glass Bright Powder and other Famous "GETS IT" products at wholesale prices direct to you.

Phone your requirements—get our prices.

FERRIN SOAP MANUFACTURING COMPANY
1948 LAWRENCE ST. TAbor 8733 DENVER, COLORADO

A Real Flush Valve



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter



Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen or Silk. Washable as underwear. Three distinct types, many variations of each.

The Picture Shows "Type N"

Storm belts adaptable to all conditions, Ptosis, Hernia, Pregnancy, Obesity, Sacro-Iliac Relaxations, High and Low operations, etc.

Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia

in England, reiterate again and again that these and the dole are totally different. In name and administration, yes; in effect, no. They both encourage people to want something for nothing or much for little which in effect makes parasites out of them. Almost endless illustrations supporting the statement that Compulsory Health Insurance and the dole are alike in effect could be produced, but one will have to suffice. Liek, in his book recounts the following experience he had while a Krankenkasse physician in Germany. A middle-aged man came to him for examination with the view of securing sick benefit. Liek examined the patient carefully; he could find nothing the matter with him —in fact, he found him an unusually well-veloped and robust individual. He told the man the facts and elicited the following story. The man told Dr. Liek that he was the only man in his village that did not get some kind of a government stipend, sick benefit, dole, or pension and that everybody was ridiculing him because of this.

No one who is at all familiar with Bernard W. Shaw's writings will ever accuse him of being on favor of the present economic system in England. He has the following to say about the dole: "The Labor party has just twisted conditions all around. They taxed people who live on unearned income and create their own leisured class —people who live on the dole. The dole is not much, but if you have four or five in one family living on dole you have a hostel of leisured people living very well. That must cease."

The whole Social Insurance scheme is based on the ethically indefensible theory that individuals are entitled to things that they have not earned and on the politically unsound doctrine that society owes every citizen a comfortable living whether or not he repays society by doing his fair share of the world's work. Under Compulsory Health Insurance the individual who works only half time is entitled to just as much free medical service and is likely to get much more in sickness benefits than he who works full time. Not only this, but it actually en-

MATCHED OFFICE SUITE

IN PERIOD DESIGN

at just 1/2 price

Purchased from a Grand Rapids manufacturer who discontinued his line of office furniture and offered the salesroom samples at exactly one-half the regular prices.

This is a professional man's suite consisting of flat top desk, narrow refectory table, cabinet, carved four-fold screen, swivel chair and arm chair; in carved English oak with deep red leather.

STANDARD PRICE $780.00. OFFERED FOR $390.00

HOWARD LORTON INC.

724-746 SPEER BOULEVARD

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

CHANGING THE FLORA WITH A FOOD



LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)
The scientific carbohydrate food which combats intestinal putrefaction by encouraging the growth of a normal flora.
Nature's Method — More Effective
Samples and literature on request.
The Battle Creek Food Co.
BATTLE CREEK MICHIGAN

Announcing *The Introduction of*
THE STILPHEN AIR CONDITIONING UNIT
Dependable—Simple—Economical
Particularly adapted for Hospitals—Institutions
Write for circulars illustrating and describing this machine
C. A. Stilphen Engineering and Manufacturing Co.
1129 Eighteenth St., Denver, Colo.
KEysotne 0929
Exhaust Fans for Ventilation



Nature Made It!

ORIGINAL MANITOU Sparkling Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The Manitou Mineral Water Co.
Manitou, Colorado

courages immorality and riotous living as the following personal experience well illustrates. As a young man I worked two seasons in a lumber camp. The camp in which I lived comprised between thirty-two and forty men. Of this number only one did not use intoxicating liquor; only two did not use tobacco; and half of the men spent their hard-earned wages either at the saloons in the nearby town or went regularly to the Island or did both. Those who are familiar with the Islands of the upper Mississippi river need no explanation as to why they went there. I wonder how Health Insurance, insuring these men for loss of time and providing free medical care for them, would have prevented their doing the very things which were the cause of much of their sickness. For my part, I believe that a larger per cent of them would have gone to the Island if they had felt that they would be protected against loss of time and that they would receive free medical care if they became sick. Health insurance would actually have increased not only sickness but immorality as well in this camp.

A recent survey of five thousand students at the University of Minnesota found only ten, or two per thousand, with positive Wassermanns. Careful surveys in various parts of the country indicate that about 3 per cent, or thirty per thousand, of the general population of the United States is syphilitic. A Wassermann examination of three thousand prisoners in the Southern Illinois Penitentiary revealed the fact that three in ten, or three hundred per thousand, were syphilitic. This same ratio undoubtedly pertains to the class most criminals come from and raises the average in the general population.

It is a well-known fact that alcoholics and those suffering from venereal diseases are much more liable to loss of time from sickness than are those not so affected. What right has any just government to take of the earnings of the two first groups without their consent and give them to the third group? A just and humane government protects the weak from oppression and exploitation by the strong and unscrupulous; but a just and

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources — We Insure Only Ethical Practitioners

David Jacobs, Manager — *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. — Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.

BALTIMORE, MARYLAND

W.T. ROCHE

Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 — YOrk 0901

18th at Gilpin

WHY
EXCUSE YOUR STATIONERY
EVEN TO YOURSELF!

Every business day—letters and statements leave your office—a silent representative of YOU—

ARE YOU PROUD OF THEM?

Pass by the imitation!

USE GENUINE STEEL ENGRAVED STATIONERY!

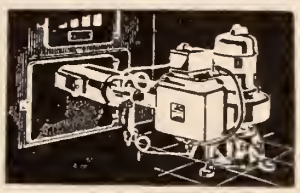
Ask for Our Professional Men's Special Free Offer—New Low Prices

The
Kraft Engraving Co.

(Since 1895)

1221 California St. — Main 2723

Denver



WAYNE OIL BURNERS

HEALTHFUL — Automatic
Economical Oil Heat
With SAFETY

Provides "New Freedom" From Furnace Worries

Refrigerating & Oil Heating Service

Distributors

251 Broadway — SPruce 3610

THE TULANE UNIVERSITY
OF LOUISIANA
Graduate School of Medicine
Approved by the Council on Medical Education of the A. M. A.
Postgraduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

24-HOUR SERVICE
AMBULANCE *and*
PULMOTOR SERVICE
DAY AND NIGHT PHONE
Main 830
John E. Wylie, Mgr.
112 Exchange Place, Colo. Springs, Colo.
Packard Invalid Sedan
Regular Equipped Ambulance

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5911
DAY STORAGE $5 PER MONTH
Wash Given with First Month's Storage
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

"Say it with flowers"
Park Floral Co.
Phones M. 1713-1714 1643 Broadway

wise government does not penalize the strong, industrious, clean-living and thrifty and favor the weak, lazy, shiftless and immoral. Giving the weak, lazy, and shiftless undue advantage over the strong, industrious, and thrifty actually penalizes and handicaps the latter, interferes with the law "of the survival of the fittest," and must eventually lead to race degeneracy. If the white race persists in this course long enough, the "yellow peril," so often glibly and jokingly mentioned, may become a real menace to western civilization.

All independent writers on the subject state, and even the proponents of Compulsory Health Insurance have to admit that it has tremendously increased occupational neuroses, and that is just what was to be expected by those who know human nature and can see just a little further than the ends of their noses.

The following quotation from a paper by William H. Hicks is pertinent: "In accident cases, where the question of compensation is involved, conditioned reflexes are sometimes created by the patients' environment that not only retard recovery but instigate additional symptoms or may lay the foundation for successful malingering."

One of the worst features of Compulsory Health Insurance is that if continued long enough it will crush out of character the three capital I's—Independence, Industry, and Integrity. Such schemes are as Guglielmo Ferrero, the eminent Italian historian, rightly says, "artificial," and "while they tide over trifling evils of the moment, they lay up for the future troubles and difficulties and dangers of infinitely greater gravity."

(To Be Continued)

State Medicine seems a little more remote when we read the U. S. Census Bureau's figures showing that state governments, in 1929, spent:

For highways, 36.5 per cent of their budgets.

For conservation of health, 1.7 per cent.

Insufficient protein will cause failure to grow, as will also a lack of calcium.



The "Silver Seal" assures you of the utmost in quality, convenience and cleanliness. This cap is heavy aluminum foil, securely crimped around the bottle top, sealing the contents air tight.

The new Meadow Gold Milk bottle is perfectly smooth inside. It has no "unsanitary" groove in the bottle top to prevent absolute cleanliness.

This bottle is opened with an easy turn of the wrist. When replaced, the top serves as a convenient protective cover.

Only Meadow Gold products bring you the advantages of the "Silver Seal" and this new type bottle.

WINDSOR-MEADOW GOLD

MAin 5131

Deep Rock

Distilled Water

Many of the ordinary so-called distilled waters contain iron or copper salts—caused by contact with iron or copper condensers.

Deep Rock is distilled from pure, soft artesian water. It comes in contact only with pure block tin in distillation and is free from mineral salts, making it an exceptionally PURE product for laboratory use.

Phone

TA. 5121

Deep Rock Water Co.

TOY TROPICAL FISH
40 Varieties Reasonably Priced
WATER LILIES POND SUPPLIES
FANCY BREEDING GOLD FISH
Ship anywhere; write for price list.
A Full Line of Aquariums, Aquatic Vegetation and Supplies
CHARLES T. GORE
4524 Decatur St. GAllup 0410

BRONZE TABLETS
BENEFACTOR'S MEMORIAL PLATES FOR HOSPITALS
IN STAMPED BRASS OR CAST BRONZE.
BRASS AND BRONZE SIGNS
FOR THE PHYSICIAN
SACHS-LAWLOR
DENVER
ESTABLISHED 1881

WE GIVE YOU OUR BEST
In the Real Quality of
TAYLOR-MADE
Corsets, abdominal belts and KENLASTIC stockings, with SERVICE made possible by many years of experience in surgical fitting.
CHAS. B. E. TAYLOR
ELIZABETH KENDRICK TAYLOR
204-5 McClintock Building
1554 California St.
Denver, Colo.
MAin 2357

IMMATERIA MEDICA

SOCIAL LIFE OF A PHYSICIAN
(Courtesy of Life)

You very rarely notice any eminent physician
Remaining at a playhouse 'til the time for intermission,
For whether viewing drama or a fetching flock of beauties
He never shakes the fetters of his therapeutic duties.

When Mister Stork determines on a sudden visitation,
The bird is no respecter of a doctor's recreation.
Who ever met a microbe or a demon of infection
Possessed of any thoughtfulness or sense of circumspection?

And that is why no medico is ever really certain
If he will see what happens at the final fall of curtain.
For all he knows, the maiden that the villain was pursuing
Surrenders at eleven to the fellow's fiendish wooing.

Alas, the poor physician and alack, his nob'le calling—
His well-earned "fees for services" result in shameless stalling.
We send our checks for clothing, for amusement and for raiment,
But tersely tell the doctor: "You can whistle for your payment!"

—Arthur L. Lippmann.

* * *

The Doctor of a country village had two children who were acknowledge to be the prettiest little girls in the district.

While the two children were out walking one day, they happened to pass two small boys, one who lived in the village and a visitor.

"I say," said the latter, "who are those little girls?"

"They are the doctor's children," replied the village boy. "He always keeps the best for himself."

* * *

Hodge: "I went to a funeral yesterday and noticed a very odd thing. There were only five pall bearers."

Podge: "Where was the other one?"

Hodge: "Inside. Proposing to the widow."

* * *

Yes, dear, more than one X at the end of his letter means that he is double crossing you.

* * *

Ma—"Mother's work is never done."

Pa—"No, with so much bridge playing, how could it be?"

* * *

"Jerry is a hopeless bachelor, isn't he?"

"Oh, no. He hasn't given up hope of remaining one."

* * *

Old Lady (to street car motorman): "Please, Mr. Motorman, will I get a shock if I step on the track?"

Motorman: "No, lady; not unless you put your other foot on the trolley wire."

COLORADO COLLEGE of PODIATRY

1554 California St., Denver

Bertha DeWolfe, D.S.C., Dean

Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

CUSTOM MADE

NU-BONE

SUPPORTING OR FOUNDATION GARMENTS

For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.

RUBY A. BETTS

22 Lincoln SPruce 7998

for Quality
Zinc Etchings
Color Plates - Half Tones

Seeleman-Ehret
Photo Engravers

Tabor 2701 — 1950 Champa Street

Denver Colorado

APEX FIXTURE CO.

Cabinet baths and special bath fixtures made to order for Hospitals, Sanitariums and Physicians.

628 15th St., Room 12 Denver, Colo.

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of

ORTHOPEDIC APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.

Phone KEystone 2702

Denver, Colo.

Thirty-nine years in the same location

SELLING HIGH-GRADE

COAL, WOOD CHICKEN FEED HAY AND GRAIN

Honest Weight *Prompt Delivery*

The DeSellem Fuel and Feed Company

PH. TAbor 3205

3463 Walnut St. Denver, Colorado

At Last!—

WHOLE WHEAT BREAD

The Way the Doctor Wants It

VITAMINES—NUTRITION—ROUGHAGE

All the nutrition of the wheat grain retained. Nothing added—nothing taken away.

OTTO'S BAKERY

Wm. Otto

611 N. ROYER ST. MAIN 4778

COLORADO SPRINGS

Where a High Standard of Cleanliness Always Prevails

Fine Upholstered Furniture Made to order

Furniture repairing of all Kinds

Henry Meyer

Upholsterer and Furniture Manufacturer

DENVER

538 East 17th Ave., at Pearl St.

Phone TAbor 4087

PHOTO ENGRAVING

AND

MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.

PHOTO-ENGRAVERS AND MAP MAKERS

KEYSTONE 5634 -830- 16TH ST.

DENVER, COLO



And then there was the poor soul who thought that a brick kiln was an Irish murder.

* * *

"Are you a contributor to the Atlantic Monthly?"

"Not exactly. This is my first voyage."

* * *

Man is but a worm. He comes along, wiggles about a bit, then some chicken gets him.

* * *

"The acoustics of your hall are terrible."

"Nonsense. It's the chemistry building next door that you smell."

* * *

"What did you do when you found that your husband was leading a double life?"

"Oh, I redoubled."

* * *

"Are you positive," demanded counsel, "that the prisoner is the man who stole your car?"

"Well," answered the witness, "I was until you cross-examined me. Now I'm not sure whether I ever had a car at all.

* * *

A small boy leading a donkey passed by an army camp. A couple of soldiers wanted to have some fun with the lad.

"What are you holding on to your brother so tight for, sonny?" said one of them.

"So he won't join the army," the youngster replied, without blinking an eye.

* * *

"Backache can easily be prevented," says an advertisement. All that a man has to do when his wife looks meaningly at the lawn, is to creep into the tool-shed and remove a vital part of the mower.

* * *

"Did Helen have a normal reaction when the doctor tapped her just below the knee?"

"Oh yes, she didn't blush at all."

* * *

Prosecutor: "Tell the court how you manage to wear an outfit like that on a stenographer's salary."

Defendant: "It's a gift."

* * *

Man (rushing excitedly into crowded police station): "I want to report the murder of a saxophone player."

Police Captain: "Well, get in line."

* * *

"Do you object to people who serve ginger ale at parties?"

"Not so long as they serve it with the proper spirit."

* * *

"I don't feel fit unless I have my game of squash every night."

"At the Athletic Club?"

"No, in the subway."

* * *

First Lady: "I've had to discharge three different maids during the past month. Isn't the servant problem terrible?"

Second Lady: "Not for me, I'm not jealous of my husband."

* * *

"How do you like this new hat? I just paid $15.00 for it."

"Paid $15.00 for it? Where are the holes?

"What holes?"

"The holes for the ears of the donkey that would pay $15.00 for a hat like that."

Teacher: "Now, Robert, what is a niche in a church?"

Bobby: "Why, it's just the same as an itch anywhere else, only you can't scratch it as well."

* * *

Host: "If you didn't care for the supper, at least you can't say the liquor is innocuous."

Guest: "No, ashk me shumpin' eashier to shay."

L. D. DUTCHER Phone 2995-R



DUTCHER AMBULANCE SERVICE
BALLOON EQUIPMENT
INVALID SEDANS
315 West 4th Street Phone 390
PUEBLO

WANTADS

POSITION WANTED

Graduate Nurse with five years surgical experience wants position in operating room or doctor's office. Will go out of Denver. Box 1, Colorado Medicine.

PRACTICE FOR SALE

Equipment and X-ray if desired. Terms. N. E. Colorado. Population 1,400. Address Dr. X, % Colorado Medicine.

POSITION WANTED

Registered technologist and registered x-ray technician with eighteen years' experience in tuberculosis work, the last sixteen years at Agnes Memorial Sanitarium. Now seeking location due to closing of the sanitarium on July 1, 1932. Margery M. Malins, 2265 Forest St., Denver; telephone FRanklin 1997-J.

PRESCRIPTION PHARMACISTS

to the members of the

COLORADO STATE MEDICAL SOCIETY

City	Name and Address	Telephone
Denver	R. K. ANTHONY, 4901 Lowell Blvd.	GAllup 0294
Denver	BAIRD Pharmacy, 3850 Federal Blvd.	GAllup 0549
Denver	BROTHERS Pharmacy, 5001 E. Colfax	YOrk 2171
Denver	ESHER Drug Co., 2335 E. 28th Ave.	YOrk 0296
Denver	IMPERIAL Pharmacy, 319 16th St.	KEystone 1550
Denver	MUDGE Pharmacy, 3801 Walnut St.	TAbor 4523
Denver	SIXTH AVE. Pharmacy, 600 E. 6th Ave.	SPruce 9706
Englewood	JOHN T. HEPPTING, 3398 S. Bdwy.	Englewood 744
Grand Junction	COPELAND'S Apothecary, 523 Main St.	Grand Junction 39
Littleton	LITTLETON Drug Co., Littleton	Littleton 133
Salida	WAGGENER'S Pharmacy, Salida	Salida 400

ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Ambulance Service Co. ---30
American Ambulance Company---25
American Medical and Dental Association ---Cover 2
Apex Fixture Company---33
Battle Creek Food Company---28
Betts, Ruby A.---33
Boulder-Colorado Sanitarium ---14
Carlson-Frink and Company---20
Cassell, Sybil ---18
Chicago, Burlington & Quincy R. R.---24
Children's Hospital ---13
Cocks-Clark Engraving Company---17
Cocomalt ---19
Colonial Food Products Company--- 2
Colorado Artificial Limb Company---21
Colorado College of Podiatry---33
Colorado Springs Psychopathic Hospital--12
Conway's Floral Shop--- 23
Corrective Foot Fitters---Cover 4
Cragmor Sanitarium ---15
Cutter Laboratory ---Cover 4
Daniel-Smith Engraving Company---34
Davis, F. A. Company--- 1
Deep Rock Water Company---31
Denver Fire Clay Company --- 7
Denver School of Swedish Massage---23
DeSellum Fuel and Feed Company---33
Dry Milk Company--- 5
Dutcher Ambulance Service---35
Ferrin Soap Manufacturing Company---25
Garden Farm Dairy---27
Glockner Sanatorium ---13
Gore, Chas. T.---32
Gray and Palmer---16
Hagberg's Convalescent Home---17
Hynson, Westcott & Dunning---22
Insulating Products Company---25
Jones, William ---33
Knox Gelatine ---19
Kraft Engraving Company---29
Lederle Laboratories ---19
Lilly, Eli & Company--- 8
Lorton, Howard, Inc.---27
Manitou Mineral Water Company---28
Matchett, Mrs. Carolyn---17
Mattson, G. W.---11
McClelland Home ---16
Mead, Johnson & Company--- 6
Meeker Home ---21
Meyer, Henry ---34
Miles & Dryer Printing Company---25
Mount Airy Sanitarium---Cover 1
Nichols, David ---11
Oklahoma City Clinical Society--- 9
Old Homestead Bread Company--- 4
Otto's Bakery ---34
Owen Coal Company---Cover 3
Park Floral Company---30
Parke, Davis & Company--- 3
Pfister, Mrs. J. M. Blinn---11
Porter Sanitarium ---11
Prescription Pharmacists ---35
Refrigerating and Oil Heating Service---29
Republic Orthopedic Shoe Store--- 2
Roche Ambulance Service---29
Rowlands, Ann ---17
Sachs-Lawlor ---32
Sanitary Specialties Co. ---23
Seeleman-Ehret Photo-Engraving ---33
St. Francis Sanitarium---14
St. Joseph's Hospital---15
Shirley Garage ---30
Shirley-Savoy Hotel --- 9
Stephenson, E. F.---23
Stilphen Engineering Co.---28
Storm, Katherine L., M.D.---26
Taylor, Charles B. E.---32
Therapeutic Bath Institute---22
Trowbridge Training School---18
Tulane University ---30
United States Fidelity & Guaranty Co.---29
Walgreen Company --- 5
Wantads ---35
Western Flying Service---23
Western Newspaper Union---18
White Flushing Valve Co.---26
Windsor Farm Dairy---31
Woodcroft Hospital ---12
Worrell's Rest Home---17

HOME HEATING

THE MODERN WAY

CARD HYDRAULIC STOKER

Clean, economical, uniform heat—the modern fireman

Is your house cold when you arise in the mornings?
Is it too hot when you retire at night?
Is it cold when you return from the theatre?
Does your wife have to care for the furnace during your absence?
Would you like to eliminate these common problems?

Installed under guarantees that remove any possibility of disappointment. Send for descriptive folder, or ask your representative to call and explain it—no obligation, of course.

If Your Problem Is COAL, Let Us Help You

There are different coals for different uses.

If you tell us the number of rooms to serve, describe your own heating plant, etc., we can intelligently prescribe the kind of coal YOU should use.

WE CAN SAVE MONEY FOR YOU!

The OWEN COAL COMPANY

Distributors

801 West Bayaud Avenue — Phone SPruce 4428

Denver, Colo.

Our Stoker and Coal Service Must Satisfy Before We Receive Payment



No assembly necessary . . . syringe is a complete unit ready to use within five seconds after lifting from box.

NEW!

Cutter's Tetanus Antitoxin Syringe
(1500 Units per c. c.)

SIMPLIFIED TECHNIQUE

1. Lift box cover.
2. Pick up syringe . . . and give the rubber needle hood connector a push and pull.
3. Twist plunger.

The CUTTER Laboratory
Established 1897
Berkeley, California

CORRECTIVE FOOTFITTERS

44 South Broadway Phone Spruce 5276
Denver, Colorado

Corrective shoes with double arch supports for the entire family, fitted by expert and experienced foot fitters from an orthopedic standpoint and according to the type of shoe best adapted to each foot. Eliminate your foot troubles by wearing shoes fitted correctly and scientifically. We co-operate with the medical profession through our licensed chiropodists and trained shoe-fitters, as 90 per cent of our fittings are with people having foot ailments.

Special lasts made for abnormal feet. X-ray service at our Denver store. Write us directly for catalogue and details for ordering by mail or for interview with our traveling representative when in your territory. Mail orders given special attention.

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 11 NOVEMBER, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103. Act of October 3, 1917, authorized July 17, 1918

THE COLORADO MEDICINE
NOV 7 1932
LIBRARY

TABLE OF CONTENTS

Editorials
Sickness Insurance in the United States.....425
Definition of "Panel System" 425
Observations on State Medicine.....426
Surrendering to Charity 426
Services of Our Past-Presidents 427
Discussions to Be Abstracted 427
Certification of Specialists.....427
The Outlook for Medical Practice in Germany 427

Original Articles
Recent Progress in Medicine, Maurice H. Rees 428
Undulant Fever in Colorado, Paul J. Connor and F. Julian Maier.....430
Meningitis in Denver—A Statistical Summary of a Five Year Period, B. B. Jaffa.....434
Gonorrhea in Women 436
Experimental Production of Blood Changes Simulating Pernicious Anemia, H. J. Sims 440

Public Health Notes 441

Library Notes, Book Reviews 442

Medical Biography 447

Secretarial Notes and Comment
Important Rulings by the Publication Committee 448
Medical Societies 448
Woman's Auxiliary 449
News Notes 450
Officers, Committees, Secretaries 451

Wyoming Section
Editorials
Our Very Modest President.....452
Our Ladies 452
Presbyopia 452
A Correction 453
Obituary 453
Original Article
Infant and Child Care and Feeding, N. Charles Geis 454

Hospital Section
Editorials
Change in Time of Meeting.....Ten
Colorado Hospital Association Program .....Eighteen
Discussion of Fellowship Proposal.....Twenty

Immateria Medica .....Thirty-Four

Colorado State Medical Society Library
and
Medical Society City and County of Denver Library

COMPRISE JOINTLY

Total number of volumes.....25,763
Total number of portraits..... 418
Number of periodicals received in 1931:
American, 143 Foreign, 91 Total, 234

SERVICE TO ALL MEMBERS OF THE COLORADO STATE MEDICAL SOCIETY

1. *Loans by Title:* Upon request, any book or journal will be loaned for one week.
2. *Reference Service:*
(a) Upon request, literature on any stated subject will be found and forwarded.
(b) As received, current journals will be searched for articles on a stated subject and appropriate issues forwarded to those members requesting this service.
3. *Journal Service:* Two hundred and twenty-eight medical journals are received regularly. ANY MEMBER OF THE STATE MEDICAL SOCIETY may select a journal or a number of journals which he would like to receive regularly, and these journals will be loaned for one week.

BORROWERS PAY ONLY SHIPPING CHARGES.

"WHAT CAN WE DO FOR YOU?"

You Can't Get Water From a Dry Well

Unless You Dig Deeper

The old accounts on your books are as a dry well. The older they become the more the well fills up with the rubbish of time—neglect, excuses, bankruptcy, disputes and whereabouts unknown, making it harder digging.

Why Not Start Digging Now?

Send Us Those Slow Accounts Today. Why Wait?

20 Years' Experience

Collecting Professional Accounts

"Approved by Your Medical Society"

THE OLD RELIABLE SERVICE

Credit Ratings — Bonded

Fees as Low as 20 per Cent

Quicker Service — Greater Results

The American Medical and Dental Association

Credit Men for the Medical and Dental Professions

700 Central Savings Bank Bldg. — Phone TAbor 2331

DENVER, COLORADO

A 74 YEAR RECORD OF



From J. T. Gwathmey's "Anesthesia—Second Revision" by permission of MacMillan Co.

PURITY
EFFECTIVENESS
SAFETY



SQUIBB ETHER has a record of 74 years of clinical experience. In millions of cases it has proved its dependability by carrying patients safely through the unconscious and post-operative periods with a minimum of danger. Today, as always, Squibb Ether is the standard anesthetic ether.

Squibb Ether is packaged in a copper-lined container—the result of years of research to protect ether against deterioration. It is the only ether so packaged to prevent the formation of oxidation products. A special mechanical closure prevents contamination of the ether by solder or soldering flux. The cap is designed so that a safety pin may be inserted to provide a handy dropper for administration of the ether by the Open Drop Method.

Squibb Ether will maintain indefinitely the same high degree of purity and effectiveness as when it was packaged. It is the safest, most convenient, and most economical ether for surgical use.

For literature giving complete rules for Open Ether Anesthesia, write the Anesthetic Department, 745 Fifth Avenue, New York City

SQUIBB ETHER

HEAT WITH OIL!

Consult your physician in regard to the kind of heat that is most healthful for you and your family.

Our oils are of the finest quality and meet the manufacturer's recommendations prescribed for your burner.

THE NAVY GAS AND SUPPLY CO.
(SHELL PRODUCTS)

4700 YORK PHONE KEy. 5141

Attention of Every Doctor

Is Invited to the

PALMER CENTRAL BUSINESS SCHOOL

Denver, Colorado 1080 Broadway TAbor 1081

1. We are now prepared to supply temporary or permanent Secretaries who are trained in the art of carefully handling your patients.
2. Every assistant is selected with the view of doing the work in the Doctor's office.
3. Each Secretary is especially schooled in the collection of accounts—they are able to satisfactorily take over your collections. This arrangement is very gratifying, inasmuch as they are trained to retain the friendship of your patients, and at the same time get the money whenever possible.

Our School has only the best! We are out of the congested district—close to the best homes in Denver.

We invite enrollment of students from the Doctor's family, and those recommended by him. Character references required.

We are pleased to take a local student and give them training for your particular work. Write for particulars.


PARKE-DAVIS
HALIVER OIL
WITH VIOSTEROL-250 D
EXCEPTIONAL POTENCY. Extracted by a special method, halibut liver oil, which contains very large amounts of natural vitamin A, is reinforced by the addition of Parke-Davis Viosterol. Parke-Davis Haliver Oil with Viosterol-250 D is standardized to contain 60 times as much vitamin A as a high-grade cod-liver oil, and as much vitamin D as Viosterol-250 D.
MINIMUM BULK. The vitamin A equivalent of a teaspoonful of cod-liver oil is contained in one minim (3 drops) of Parke-Davis Haliver Oil with Viosterol-250 D. The small doses needed to provide adequate quantities of vitamin A also afford ample vitamin D dosage.
MAXIMUM CONVENIENCE. Because of its high vitamin A and D potency a few drops are sufficient in infants' formulas; older children readily take the small dose required; and adults receive abundant vitamin medication in soft, easily-swallowed capsules.
Accepted for N. N. R. by Council on Pharmacy and Chemistry of the A. M. A.
Supplied in 5-cc. and 50-cc. vials and in 3-minim capsules.
When prescribing through your druggist please specify "Parke, Davis & Co."

THE OLD HOMESTEAD BREAD CO.

offers for your approval

The Formula of

KELPIN

Whole Wheat Bread

26	%	Montana W. W. Flour
26	%	Kansas Patent Flour
26	%	Water (filtered)
5	%	Powdered Milk
5	%	Cerelose
2	%	Salt
4	%	Shortening
1½	%	Diastatic Malt
½	%	Kelpin*
2	%	Honey
2	%	Yeast
100	%	

*Our Kelpin Has a Vegetable Iodine content of .11 per cent.

It is rich in iodides

It is rich in food value

It is well baked and sold fresh

ELI LILLY AND COMPANY

FOUNDED 1876

MAKERS OF MEDICINAL PRODUCTS



ILETIN
(INSULIN, LILLY)

A Specific in the Treatment of Diabetes Mellitus

PROMPT ATTENTION GIVEN PROFESSIONAL INQUIRIES

Principal Offices and Laboratories

Indianapolis, U. S. A.



A Group of Distinguished Products of the Lilly Laboratories

For Hypnosis *and* Sedation

Amytal Tablets

For Nasal Decongestion

Ephedrine ~ *Inhalants, Compound and Plain; Ointment Compound; Jelly (water soluble)*

For Bronchodilatation

~ Pulvules (*filled capsules*), Sulphate and Hydrochloride, *3/8 and 3/4 grain.*

For Diabetes Mellitus

~ Iletin (Insulin, Lilly).

For Effective Antisepsis

Merthiolate ~ ~ *Solution, Tincture, Jelly (water soluble)*

For Preanesthetic Use

Sodium Amytal ~ *Pulvules (filled capsules) 3 grains.*

For Convulsions ~ *Ampoules.*



PROMPT ATTENTION GIVEN PROFESSIONAL INQUIRIES.

WALGREEN COMPANY

The Doctors' Druggists

METROPOLITAN BLDG.

KEystone 2301

DENVER

Now and then, when you require co-operation plus. Something out of the ordinary, vitally important. Don't hesitate to get in touch with our store manager, Mr. B. A. Bonner. He will take a personal interest in attending to your requirements. By the way—our mail order department is giving immediate attention to physicians' correspondence. "In and out in one hour," is our system.

—Walgreen Dependability Always Maintained—

Prescribe Irradiated Milk and Prevent Rickets!

"The great advantage of using activated milk, both fluid and dry, in the prophylaxis of rickets, is that this measure furnishes an automatic method of therapy and likewise provides calcium and phosphorus."

A. F. HESS and J. M. LEWIS
Journal of the American Medical Assoc.
August 20, 1932

"It may be added that dry milk, milk dried by the roller process, was found last year to be very effective in protecting against or curing rickets and this product maintains its potency for a period of many months." (Ibid).

PRESCRIBE

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

DRYCO

Made from superior quality milk from which part of the butterfat has been removed, irradiated by the ultraviolet ray, under license by the Wisconsin Alumni Research Foundation (U. S. Patent No. 1,680,818) and then dried by the "Just" Roller Process.

Send for literature and samples.

THE DRY MILK CO., Inc. Dept. C, 205 E. 42nd St., New York, N. Y.

ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED



How Much Sun Does the Infant Really Get ? ◆

Not very much: (1) When the baby is bundled to protect against weather or (2) when shaded to protect against glare or (3) when the sun does not shine for days at a time. Mead's 10 D Cod Liver Oil with Viosterol offers protection against rickets 365¼ days in the year, in measurable potency and in controllable dosage. *Use the sun, too.*

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons



ACCEPTED AMERICAN MEDICAL ASSN.

"Thanks to you and White's, Doctor"

This is a picture from life . . . A primipara, who at the start of pregnancy was definitely underweight, high strung and nervous, showing signs of calcium deficiency.

Immediately after the diagnosis of pregnancy (second month) she was put on White's Cod Liver Oil Concentrate Tablets (half-teaspoonful tablet 3 t. i. d.) . . . And on White's alone she developed in general health and well-being throughout pregnancy, her nervousness abated, her diet was normal, she had no abnormal cravings.

The baby was a girl, weight 8 lbs., perfectly developed, no signs of calcium deficiency. Hungry the first day and in due course amply cared for by mother's milk.

Just a human interest story, Doctor, but the results and the happy appreciation of the mother make it the type of case that would gladden you too. (Maybe we'll show you the baby later.)

In your gravidae also, why not White's Cod Liver Oil Concentrate with its absolutely controllable Vitamin Dosage, rigidly assayed — its pleasant taste, and freedom from oil nausea?

We'll gladly send you a test supply.



Health Products Corporation, Newark, N. J.

Yes, please, send a test supply of White's Cod Liver Oil Concentrate Tablets.

_____ *M. D.*

_____ *Street*

_____ *City & State*

HEALTH PRODUCTS CORPORATION, NEWARK, N. J.

ELI LILLY AND COMPANY

Founded 1876

Makers of Medicinal Products for Use
Exclusively Under Medical Direction



Pulvules Sodium Amytal

In anxiety, unrest, and nervous excitability, to remove inhibitions, to facilitate psychotherapy, in surgery prior to inhalation anesthetics, and in obstetrics Pulvules Sodium Amytal (sodium iso-amyl ethyl barbiturate), orally, will be found of distinct therapeutic usefulness.

Prompt Attention Given to Physicians' Inquiries

Address Principal Offices and Laboratories, Indianapolis

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: C. F. Kemper, M.D., *Chairman*, C. S. Bluemel, M.D., W. H. Crisp, M.D.

VOL. 29 NUMBER 11 NOVEMBER, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

Sickness Insurance in the United States

AN ARTICLE upon this subject by C. Rufus Rorem, Ph.D., Associate for Medical Services, Julius Rosenwald Fund, appears in the American Hospital Association Bulletin for July, 1932. A few points emphasized by Dr. Rorem are worthy of mention:

People in this country spend, upon the average, $25 to $30 individually for medical care, but over half the expenditure falls upon less than 15 per cent of the families. The cost of sickness can be predicted for any large group, but not for its individual members. These costs must be met by the patient, the public, or the physician.

The prevailing types of insurance protection now obtainable through life, casualty and accident companies, do not provide medical care or guarantee coverage of its costs. The rates are relatively high and hence within the reach of only a minority. Lodge benefits provide very limited monetary return, and the quality of medical service is often poor.

Several types of agreements by which groups have voluntarily applied the insurance principle in payment for medical and hospital care are now in existence. Some apply to hospital services exclusively, others to physicians' services exclusively, and others to both. Approximately four hundred business enterprises have established more or less complete medical services for their employees. Many are successful and have expanded that they may also include the families. There are examples of imitation of these services by fly-by-night companies. They have resulted in injury to the public health and to the reputation of our profession and its institutions.

For some ten years, hospital insurance plans have guaranteed hospital care in one of the several institutions after the payment of a fixed annual sum. These have included both individual members and groups. Certain exceptions are always made, as for example contagious, tuberculous, and mental cases. Discount is usually provided for obstetrical cases. Limits are sometimes specified, usually about $200.

The effect of this activity upon the quality of medical care and upon professional dignity is interesting. Harm only can result if the services are superficial or impersonal. When the highest standards are maintained, patients, physicians, and institutions are apparently benefited.

Definition of "Panel System"

MANY of our readers are at a loss to interpret the term "Panel" as applied to medical practice in Great Britain.

Briefly, every qualified practitioner may elect to be put on the medical list, commonly known as "The Panel." At the present time, some 17,000,000 people whose incomes do not exceed 250 pounds (nearly $950) annually, come within the scope of the National Health Insurance Act. The insurance fund is supported as follows: 4/9 by the employer, 3/9 by the insured, and 2/9 by the

nation. The workers register with an insurance company and receive identification cards. Such card presented to the physician of the worker's choice places that worker upon the physician's panel. No panel may include over 2,500 insured persons.

At the present time, the doctors are receiving a little over $1.50 per patient annually; the average amounts to $2,232.00 for each panel physician. Half of the country's general practitioners have a panel.

A physician with 2,500 patients in his panel sees forty to fifty daily. Nearly all have some private practice in addition. The panel seems to assist many younger physicians while establishing themselves. Many poor people receive better care than they would without such services available. However, Americans who have studied the situation failed to find any well-informed British physician who feels the plan would be applicable to the United States.

❦ ❦ ❦

Observations on State Medicine

THE Sickness insurance Fund in Germany showed a deficit of 200,000,000 marks for 1930. Experts upon the plan in that country have estimated that some 18,000,000,000 gold marks are in immediate demand if that system is to be placed on a sound financial basis.

Other observations in Germany indicate that patients lack the will to recover and actually prolong their periods of disability through their own volition. There is talk of abandoning the system, although immense sums of money have been expended to facilitate its success.

Disability benefits of $100,000,000 a year are paid from the public exchequer through the National Health Insurance Act of Great Britain. A greater amount goes out for medical care and hospitalization of insured patients. However, the physicians are underpaid, while the patients enjoy the luxury of chronic illnesses, many of them minor. In 1929, 410,903 persons were known malingerers whom the doctors were obliged to treat indefinitely.

Though France adopted social insurance in 1885, it was not until 1930 that a reasonably satisfactory system became established. Until that time the doctors were unable to cope with the situation and finally, through drastic threats of combined non-cooperation, were granted a scheme of their own making. A national organization of 17,000 physicians is subdivided into local bodies called syndicates. The doctors have earnestly tried to administer the same service alike to their insurance and private practices—"A private practice relationship for all insured persons." The patients pay all fees at the time of consultation and are reimbursed later at the offices of their societies. Medical matters in France are remaining within the control of medical men.

Workers under the age of 60 and whose wage is under $720 per year, are compelled to carry the insurance. The fund is supported by an equal amount from employers and the insured and by a national subsidy of $22,000,000. Allowance is provided for dependent children, and old age pensions are guaranteed. We understand that France plans the early establishment of disability and death benefits.

What has this to do with the United States? Judging by the number of articles conveying such facts as the above in both medical and lay journals, it has much to do with our own problems. Very good authorities are urging the medical profession to formulate a plan applicable to this country, for some such system seems on its way either through, or in spite of, the profession.

❦ ❦ ❦

Surrendering to Charity

WE note an increased number of previously self-supporting citizens taking to the services of free dispensaries. They are not only attending voluntarily but are reporting with written recommendations from private physicians.

Realizing how readily people become inoculated with the germs of indolence and that the majority of these patients may soon be returned to economic usefulness, physicians should be more reluctant to encourage this trend. As times improve, these patients, reconciled to charity, will not readily again patronize private practice.

It is far better to extend reasonable credit with due explanation that payment be resumed consistent with returning prosperity. Such procedure is less precarious than the thoughtless relinquishment of patients to a lethal dose of charity.

Services of Our Past-Presidents

IN REFERENCE to the recently proposed amendment to the constitution of our Society to create a Society of Past-presidents, we are interested to note a custom of the Medical Society of the State of New York. Its past-presidents accept appointments as chairmen or members of committees. They thereby continue to give their services to the profession and public. As their years increase, an active rather than a passive professional interest is maintained. The profession profits by a great deal of wisdom and experience which would otherwise be lost.

Our own contemplated Society of Past-presidents and its representation in the House of Delegates should contribute the same, or even a greater, benefit to the profession in Colorado.

Discussions to Be Abstracted

DUE TO the increased number of papers presented at our last annual meeting and to the limitations of space in Colorado Medicine, discussions must be abstracted. Copies of discussions will be submitted to their authors before publication. Thus each author will be given the opportunity of abstracting his own discussion. However, should he prefer to have this done by the scientific editor, such will be done.

Cooperation in this matter is anticipated and will be appreciated. It is felt that this procedure will tend to improve the quality of our journal.

Certification of Specialists

MANY specialists being self-named and inadequately trained in their specialties, state medical societies and boards are aware of the wisdom in supervising their qualification and certification.

Such a method was presented at the joint session of the Federation and the Council on Medical Education and Hospitals of the American Medical Association at the educational congress last February. Conclusion was made that such regulation should be of national scope and uniform among states.

The New Jersey State Medical Society through its house of delegates has adopted a plan to accredit its members for special practice. Qualifications will be passed upon by a committee on credentials, not by examination, but by a consideration of board examinations, fellowships, and special appointments.

It appears that the medical profession should thus guarantee to the public that physicians claiming to be specialists are actually warranted. Herein lies an important means of further winning and maintaining confidence of the people.

The Outlook for Medical Practice in Germany

A RECENT Berlin letter to the American Medical Association states that unless a physician is admitted to panel practice in Germany, a living income is almost impossible. The restriction of one physician to 600 insured persons now precludes new admissions except for the filling of vacancies.

Thus the medical profession in Germany can absorb not over 1,200 new physicians each year without great accentuation of their struggle. New medical students enrolled each of the past three years has been nearly three times this number; that is, 7,800 more medical students have been trained in three years than the profession can assimilate.

In spite of this, each year finds an increase in medical students, and Germany finds herself with increasing thousands of physicians without adequate income.

(Continued on Page 427)

RECENT PROGRESS IN MEDICINE*

MAURICE H. REES, M.D.
DENVER

The past two years cannot be considered as an especially productive period for scientific medicine. The economic stress has reduced the budgets for investigative laboratories, and many special grants for research have been reduced or withdrawn. In many instances the income of investigators has been so reduced that they are forced to give more thought and attention to their mere existence, thus slowing up the entire machinery of research.

This slowing up may in the long run be a blessing. Several years ago a famous London bishop advocated a ten-year holiday in research in order that we might have time to apply the discoveries that have already been made.

Medical discoveries have their inception in the chemical, physical, or biological laboratories. In recent years the output from these laboratories has been at all times far in advance of the practical application in medical science. At the present time there are undoubtedly in the literature of the basic sciences thousands of discoveries that should be applied in the practice of medicine.

It is possible that the present economic condition may be an aid to the future of medicine since the practicing physician now has more time at his disposal for delving into the literature of the basic sciences with the expectation of finding material which may be applied in the field of medicine.

As a rule the term "medical discovery" is a misnomer. A better term would be "medical development," since advances in medicine are slow processes often requiring many years for development and final acceptance. Insulin was not discovered in a day nor in a year. Schaefer of England gave us the name and described the physiological reactions many years before the Toronto physiologists finally isolated the product. Einhoven, a physicist, gave us the string galvanometer long before it was applied as an electrocardiograph. Dr. George H. Whipple, a physiologist at the University of Rochester, discovered that liver was a strong stimulator of red blood cell production. This was the preliminary work which later led to Minot's use of liver extract in the treatment of pernicious anemia. We might go on giving numerous examples showing that long years of tedious investigation in the basic science laboratories precede the final application in the diagnosis and treatment of disease.

We should not give the impression that the past two years have been devoid of definite advancement. Working under great handicaps, many laboratories in this country and abroad have given to us new discoveries that may prove to be of the greatest value. Many of these discoveries need further investigation and testing before final evaluation. Some that now give promise may later prove to be valueless. The limited time allotted to this paper makes it possible for us to list briefly only a few of the recent advances which may have application in medicine. In making our selection ws are indebted to Science Service of Washington, D. C., for a part of our information.

The recent work of Dr. Arthur I. Kendall, bacteriologist at Northwestern University, is most interesting and may explain many of the existing problems in bacteriology. Dr. Kendall found that by the use of a special protein medium, bacteria visible under the microscope were changed to invisible, filterable phases. He was also able to return the invisible forms to visible forms at will. Now by the means of the new Rife microscope, filterable viruses may be seen as tiny oval blue bodies.

In January of this year Dr. Ralph Mellon of Western Pennsylvania Hospital Institute of Pathology reported that the tuberculosis germ has a double life in that it can shrink itself into a dwarf form beyond the visibility of an ordinary microscope. These granules are acid fast and pass through the finest

*Read before the Sixty-second Annual Session of the Colorado State Medical Society at Estes Park, Sept. 8, 1932.

filters. They may be brought back to the visible rod form by proper feeding.

Doctors R. Isaacs and C. Sturgis of the University of Michigan have produced a liver extract that is thirty times more powerful than the previous extracts. It is suitable for intravenous injection, and the authors claim that four to six injections will restore the blood of an anemic patient to normal, after which health may be maintained by injections given at intervals of four to six weeks.

The General Electric Company has developed a new cascade 1,000,000 volt x-ray tube and has now installed it in the New York Memorial Hospital in order that its possibilities in the treatment of cancer may be studied. The tube gives a more intense radiation than could be produced by all the world's available radium.

Dr. L. Taylor of the National Bureau of Standards has constructed an apparatus for accurately measuring the intensity of x-ray doses. This apparatus should greatly reduce the danger of burns during x-ray treatments.

Two new anesthetics have been recently announced. One was produced by Dr. H. A. Shoule of the Lilly Research Laboratories from alcohol, barbituric acid, and amyl. It is related to veronal but puts the patient to sleep more quickly and yet allows a quicker recovery.

The other anesthetic was developed by Dr. C. D. Leake of the University of California. It is related to ether and ethylene but is reported to be more rapid and efficient than ether, chloroform, or anesthetic gases.

The discovery of the hitherto unknown germ of smallpox has been announced by Dr. J. C. G. Ledingham of the Lister Institute, England.

Dr. F. Eberson of Mt. Zion Hospital, San Francisco, reports that he has succeeded in growing outside the body six generations of the organism causing infantile paralysis.

The synthetic antiseptic hexylresorcinol is announced by Dr. Veader Leonard of Johns Hopkins University as an apparently safe and certain treatment of hookworm disease.

Workers in the U. S. Public Health Service report that they have found evidence that Rocky Mountain spotted fever occurs in certain eastern states. These workers also found that fleas are carriers of typhus fever and that the wood tick may cause a strange type of paralysis in men as well as in certain domestic animals.

Minute traces of metals such as copper and magnesium have been shown to be of the greatest importance in body metabolism. A lack of magnesium in the diet may cause death through a disturbance of the adrenal glands, according to Dr. E. V. McCollum of Johns Hopkins University. Dr. McCollum also found that manganese was in some way related to the formation of a hormone by the pituitary gland which governs certain sexual functions.

Doctors G. Popa and Una Fielding of University College, London, discovered a secondary, or portal, system of blood circulation conveying blood from the pituitary gland to the midbrain.

Dr. Walter B. Cannon of Harvard Medical School announced a new hormone, sympathin, similar to adrenalin and thought to be produced in muscle cells by the action of nerve impulses.

Adhesions may be prevented by the use of digestive ferments, according to Doctors Alton Ochsner and Earl Garside of Tulane University.

A diagnostic test for early cancer based upon examination of the blood was announced by Dr. S. G. T. Bendien of Zeist, Holland, and Dr. Hans J. Fuchs of Berlin.

Two workers in Cornell University have announced in a new theory that insanity depends upon the state of coagulation of the brain colloids.

Dr. Walter Freeman of Washington, D. C., found a deficiency of iron in the brain cells of patients dying with dementia precox. He believes that this may be a possible explanation of the disease.

A group of workers at the Massachusetts General Hospital have found that calcium chloride is very effective in relieving the pain of lead colic, gallstone colic, and ureteral colic.

The remarkable development of public

health service may account for the fact that the health of the country has been generally good during the past two years despite the economic depression. The death rate as reported for 1931 and for the first half of 1932 is the lowest ever recorded. For the first six months of this year the death rate was 9.2 per thousand. Probably the greatest factor in bringing down the death rate for the first half of this year was the 18.8 per cent drop in the mortality from pneumonia as compared with the same period in 1931.

The reports on the death rate from cancer are far from being encouraging. The report of one of the large insurance companies shows a 7.4 per cent increase for 1931, and for the first half of 1932 it shows a further increase of 9.5 per cent. This is in contrast to an average rise of about 1.5 per cent per year for the period 1919 to 1930.

Recent reports from the U. S. Public Health Service show an increase in typhoid fever all over the nation and suggest that this increase may be due to a laxity in sanitary procedures as a result of decreased state and municipal appropriations for such purposes. For the first week of August of this year 1,119 cases were reported. For the second week of August, 1,243 cases were reported. During the same period in 1931 there were 996 cases reported. Since the peak of cases reported is usually reached between August 15 and September 15, we may expect still higher figures for this year.

Our Public Health Services must not be permitted to become lax through lack of funds. Relief work must not be emphasized to the detriment of our public health activities. If we can come out of this depression period with a clean slate as regards public health, we will have achieved a great victory for medical science.

It is the hope of all of us that the next two years will be far more productive both scientifically and economically than have the past two years. If, however, we have learned to seek out and apply the accumulated knowledge stored up for us in the basic sciences, the lean years will not have been devoid of medical progress.

UNDULANT FEVER IN COLORADO*

PAUL J. CONNOR, M.D., and F. JULIAN MAIER, M.D.
DENVER

The frequency of undulant fever in our practice is the reason for this discussion. We hope to excite the interest of the members of the profession in this disease to such an extent that they will give it definite consideration when confronted with many vague illnesses.

Captain Hughes of the British Army Medical Staff proposed the name Undulant Fever in 1879, and in 1913 this was recommended by the International Congress of Medicine held in London to replace the name of Malta Fever. The history of undulant fever dates back to Hippocrates as well as to other writers, all of whom have described fevers which have the characteristics of undulant fever. In Malta, the medical officers of that post described in detail remittant fevers between 1850 and 1861 which were undulant fever. Five years later, Chartes described these fevers in such a way that the description fits all the varieties of undulant fever. At this time undulant fever became an established entity.

In 1887, Bruce found the organism responsible for the disease. Wright and Semple first applied the agglutination test as an aid in diagnosis—a most important step in the diagnosis of this variable disease. In 1906 it was proved by accident that goats were the common source of infection of undulant fever in Malta. By chance Zammet chose goats instead of other animals for experimentation and made his discovery doing preliminary agglutination tests on these animals.

There is no question that undulant fever

*Presented at the Sixty-second Annual Meeting of the Colorado State Medical Society, held at Estes Park Sept. 8, 1932.

has occurred in the United States since colonial days, as the literature shows such descriptions under the heading of various names including "typho-malarial fever" and "abdominal typhus" or "typhus fever."

In 1897 Bank isolated Bacillus abortus. Evans established the relationship between the Micrococcus melitensis of Bruce and Bacillus abortus of Bang. Since two distince types of the variety abortus is now recognized, the National Institute of Health favors the classification of Evans which is as follows:

The organism of Bruce to be Brucella melitensis, variety melitensis.

The organism of Bang to be Brucella melitensis, variety abortus.

The organism of Traum to be Brucella melitensis, variety suis.

The variety melitensis is of goat or caprine origin; the variety abortus is of cattle or bovine origin; and the variety suis is of swine or porcine origin.

The number of cases of undulant fever reported in the United States taken from Bulletin No. 158 of The National Institute of Health is as follows:

In the period from 1905 to 1924 a total of 128 cases was reported from New Mexico, Arizona, and Texas, with South Dakota and Connecticut each reporting one. In 1925 a total of twenty-four cases was reported from Texas, Utah, California, New York, and Maryland. In 1926 a total of forty-six cases was reported from California, Texas, with only one each from Iowa, Illinois, Michigan, Ohio, Pennsylvania, and New York. From 1926 to 1929 these totals increased to the sum of 1,305.

Tracing the number of cases reported in Colorado from 1928 to the present date, we find the following:

YEAR	NO. OF CASES	COMMUNITY
1928	1	Larimer County
1929	3	Pueblo
		Julesburg
		Colorado Springs
1930	2	Elbert County
		Kit Carson
1931	7	Fort Collins
		Fowler
		Arapahoe County
		Denver (2)
		Pueblo
		Loveland

(Note: This does not include the 14 cases in our practice from Denver).

1932	1	Hygiene (Boulder County)

Dr. George Stiles of the Bureau of Animal Industry, 501 Custom House, Denver, Colorado, has been kind enough to allow us to use his findings which were obtained from testing specimens of blood taken from animals and sent in from various localities over the state by veterinarians, who were suspicious that these herds might be infected. These figures do not represent a survey of the state and are used here only to draw attention to the fact that there are infected herds in the state and that we must consider undulant fever a clinical entity in Colorado.

A tabulation covering the last eighteen months of his results on abortion tests is as follows:

	TOTAL	POSITIVE	NEGATIVE
Cattle Tested	371	107	264
Goats Tested	37	0	31
Swine Tested	10	4	6
	412	111	301

(Note: These positive reactions were taken from blood only; the udders were not tested).

The specimens of blood from these animals were sent in from herds located at or near the following communities: Las Animas, Fort Lupton, Longmont, Franktown, Kingsberg, Trinidad, Golden, Denver yards. Ten specimens from hogs were sent in from Denver, and four were found positive; thirty-one specimens from goats were sent in from Denver, and all were found negative. (This data taken from Dr. Stiles' records is only the result of tests made on specimens which were asked for by individual veterinarians in these localities).

It is interesting to note that the cow infected with infectious abortion is a carrier of the infection a short time before aborting and for varying periods after aborting. The organisms are in the discharge from the generative organs. The udder often carries them for the entire life of the animal. When you consider also that the urine and feces of the animal are infected, then the immensity of the problem of the eradication of this disease from our herds becomes understandable. Pastures and feed lots are infected; these in turn infect other animals. The bull transmits the disease through the seminal fluid and generative tract. The calf born

of an infected mother is a carrier only and by weaning it becomes free from the organism in a few weeks. The above facts show that pasteurization of all dairy products is necessary to protect our population from this disease.

In swine, the causative organism (Br. suis) is very similar to the one found in aborting cows (Br. abortus). In fact, they are so similar that many investigators have considered them the same organisms. The opinion that the Br. suis has more virulence for the human organism is generally recognized now. Goats were once thought to be the main cause of the disease; now it is proved that cattle are the most common source. Some investigators feel that the Brucella suis must be transmitted from the swine to the cow to the human being and that the Brucella abortus has no pathogensis for man. In positive blood cultures taken from our patients we have recovered only the Br. suis.

Dr. Paul Carson, Pathologist at Presbyterian Hospital, Denver, carried out our laboratory procedures and advised us regarding blood culturing, agglutination tests, and the preparation of autogenous vaccines. A brief survey of the culturing is as follows:

The blood was planted in one of the richer media and incubated. At the end of possibly one week it was transferred into an aerobic and an anaerobic medium. In approximately three weeks the organisms were transplanted to a simple agar medium on which they grew nicely. From these growths our autogenous vaccines were prepared in a strength varying from one-half billion to one billion organisms to the c. c. for treatment.

Two types of agglutination tests were used in the diagnosis of Brucella abortus infection—the first, the standard or slow method, which is applicable to testing agglutinins against any type of infection by means of the proper specific antigen; the second, the rapid test of Huddleson. This test may be applied to blood or milk serum of man or animal. The rapid test of Huddleson was and is used by us in the office. It is easy to set up and requires only about twenty minutes' time. The antigen can be bought as a commercial preparation which contains a pamphlet giving full directions for carrying out the procedure by means of simple dilutions mounted on slides and observed through the microscope.

In our series of fourteen cases, all of the clinical types of the disease as described by Hughes were present, including one malignant case—a female with a history of repeated abortions who died and came to autopsy following her last abortion. Dr. Carson recovered a pure culture of Br. suis from a pelvic abscess which involved the lower right quadrant. The clinical types recognized by Hughes were the intermittent ambulatory, undulatory, and malignant types.

The symptoms of the disease are quite variable, there being no pathognomonic sign or symptom. There is weakness which varies to complete prostration, temperature ranging from 99° F. to 105° F., chilly sensations to chills, profuse sweating usually at night accompanied often with slight delirium, neurosis, and insomnia, which is often most marked, severe bodily aching, headaches, dizziness, and palpitation of the heart. At times there is localized or generalized abdominal tenderness and pain with rigidity. In some a rash appears. There is generally a progressive loss of weight. However, often the patients do not appear seriously ill. The pulse is not in proportion to the temperature. It often only increases in rate from 10 to 20 beats per minute even when the temperature ranges between 103° F. and 104° F. Sometimes there is a cough present accompanied with a few moist rales suggesting a bronchitis. The spleen is enlarged in some and not in others. The urinary findings are the same as those of any febrile condition. The blood picture is that of leukopenia with lymphocytosis. The hemoglobin is disturbed very little. After fever has persisted for some time, there appears a slight anemia. Delirium precedes coma before death. The length of illness varies from a few weeks to several months and even to one or two years. Our ambulatory types recovered in three months; one ambulatory case, with endocarditis and ar-

thritis complicating the infection, has been ill for eighteen months.

When a patient is examined carefully and undulant fever is suspected, the diagnosis should be confirmed by resorting to the simple agglutination test, blood culture, and white and differential counts. The agglutination test is most valuable, and often it is not necessary to resort to blood, stool, or urinary culture. However, it is advisable to culture the blood as a further check in case of negative agglutination tests, as in the case of typhoid fever some blood serums taken from infected patients fail to agglutinate the antigen. The first negative blood culture should be disregarded. As a result, cultures are of limited value unless positive. When positive, they appear between the first and fourth week. We have had no occasion to use the skin test.

The differential diagnosis includes influenza, pyelitis, paratyphoid and typhoid fever, tuberculosis, tularemia, malaria, endocarditis, acute rheumatic fever, acute nephritis, arthritis, pernicious anemia, Rocky Mountain spotted fever, Colorado fever, measles, acute appendicitis, and acute cholecystitis. Here the agglutination test stands out pre-eminently.

We arbitrarily took as our titer for positive evidence of infection being present 1-400. However, the United States Public Health Survey requires a titer of only 1-50 as positive evidence of the disease. One of our cases agglutinated 1-25,000 with blood serum and 1-800 with urine. Our blood cultures were only positive in the ambulatory and malignant types. We had no complications other than abortion, endocarditis, and arthritis. However, orchitis, bursitis, mastitis, pulmonary abscess, pyelitis, cystitis, prostatitis, and broncho-pneumonia are reported as complications.

The pathology as found by Dr. Carson on posting one of our cases which proved fatal is as follows: The picture is that of sepsis. There is general swelling of the face and extremities suggesting nephritis. The spleen and lymph nodes are enlarged; the peritoneum is congested, cloudy swelling is present in the spleen and kidneys, and the kidneys show evidence of a glomerular nephritis. In this particular case there was a pelvic abscess involving the lower right quadrant following abortion.

The treatment of undulant fever resolves itself to the use of the measures of proved and accepted value. These are rest in bed, adequate diet, a large amount of fluids, and the control of exercise by the close observation of temperature—the amount of exercise controlled in order to prevent any increase in the temperature. Adjuncts to this form of management have been chemotherapy, stock and autogenous vaccines, and blood transfusions. (We believe Huddleson at the present time is working on a preparation called "Brucelin," which may be of value when released).

Some physicians using mercurochrome and acriflavine hydrochloride have reported favorable results while many have reported unfavorable results. Two Brucella melitensis, variety abortus, vaccines have been accepted by the New and Non-official Remedies. From our experience, we advise the use of autogenous vaccines if possible, and stock vaccines if not.

Since there must be present in the blood of a vast majority of the population bodies immune to the Brucella infections (for if there were not, the disease would be much more prevalent than it is because of the amount of infection we have in our herds the country over) the use of blood transfusion with the checking of the blood before using for the presence of these agglutins seems to offer the most logical and serviceable treatment at present. If whole blood known to have the necessary antibodies (preferably that from one who has recovered from the disease) is used, a passive immunity must be obtained from the donor. Quevli and Nelson of Tacoma, Washington, have been the first to use this principle in treatment, but they used it without the preliminary test for agglutination. Their reports compare favorably with ours though they used whole blood transfusions while we used autogenous vaccines. Our most severe cases, those of the undulatory type,

recovered in three months both clinically and serologically.

We began with small doses of the vaccine and increased the dose daily as the patient would tolerate it. If too large a dose were given, the patient reacted adversely and the symptoms were increased. In one case we gave as high as 1½ c. c. of autogenous vaccine at a dose. The usual maximum dose was 1 c. c. The general treatment was symptomatic—codeine, empirin, etc., for pain; sedatives, hypnotics, and hydrotherapy for delirium.

To summarize, the following conclusions are apparent (1) Undulant fever is a widespread disease, found where searched for, and that it occurs in Colorado, particularly Denver, more often than is generally suspected. (2) Br. suis is the cause of the more severe types of undulant fever. (3) Br. suis is transmitted from the swine to the cow to the human being. (4) When undulant fever is suspected, the diagnosis is simple to make. (5) It is a cause of abortion in the human being. (6) Death does occur from it. (7) Autopsy shows nothing definite other than the pathology of sepsis. (8) We do not have a satisfactory form of treatment. (9) Autogenous vaccine therapy is the most serviceable in our hands to date.

MENINGITIS IN DENVER—A STATISTICAL SUMMARY OF A FIVE YEAR PERIOD*

B. B. JAFFA, M.D.
DENVER

In presenting the following paper, it is proposed to analyze the data on meningitis collected by the Health Department from January, 1927, through December, 1931. It is not expected that this analysis will explain the factors leading to the sudden increase in meningitis, or the extremely high death rate over this period, but simply to set forth the facts in the hope that we may arrive at some logical conclusion for the future care of these cases.

The death rate over this entire period has been very close to 50 per cent of all cases treated. While it is a well known fact that various investigators have set forth the idea that there are numerous strains of meningococcus, varying the type of treatment and changing the serum used seems to have had little effect in reducing the mortality.

Studies of the records of scarlet fever, diphtheria, tuberculosis, small-pox and other communicable diseases over a period of years seem to show a definite trend toward a cyclic rise and fall, the period of the cycle varying from three to six years. Unfortunately, statistics on the occurrence of meningitis in Denver are found only as far back as 1917, it being said that "Meningitis was unknown in Denver prior to that time." Although it is not certain that the figures prior to 1924 are complete, yet the records from 1917 to 1930 show no such evidence of a cycle as is found in the other diseases studied for the same period, nor can any history be obtained of an epidemic of meningitis having occurred in Denver within the past thirty or forty years. The rise in meningitis was sudden, beginning in 1926, with the reporting of ten cases and reaching its peak in 1928 with 121 cases reported, dropping in 1929 to sixty-seven cases.

The data set forth in this paper summarizes the figures obtained from the study of some 274 cases, covering a period beginning Jan. 1, 1927, and ending Dec. 31, 1931. There appear in the files twenty-six cases originating outside of Denver, but brought to Denver hospitals for treatment. Of these twenty-six cases, twenty-one died. They are not included in the report. Two cases of tuberculous meningitis and one case of streptococcic meningitis were also discarded. The report, therefore, includes only such cases as were demonstrated to be due to the Diplococcus intracellularis meningitidis and were all classified as epidemic spinal meningitis. No effort is made at this

*Read before the sixty-second Annual Meeting of the Colorado State Medical Society at Estes Park, Sept. 8, 1932.

time to discuss the various types of treatment used by different physicians and in the different institutions or to compare the results obtained by varying the type of treatment. A study of the case records shows that the cases which recovered were usually those receiving early treatment.

The age limits vary between twenty-one days, this being the youngest age reported, and sixty-three years, which was the upper age limit. The cases occur almost in a ratio of three males to two females, while deaths were in the approximate ratio of two males to one female.

The disease reached its height from January to April of each year, then showing a steady decline until September when the rise in incidence began. Deaths follow the same trend.

Referring to age, it is noted that the highest case incidence occurred in the age groups one to four and five to nine, diminishing as the age group increases. The largest number of deaths is found in the group from fifteen to nineteen years, although the largest number of deaths occurring in any one year appears in the ten to fourteen group.

CASES BY MONTHS

	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1927	1			5	3			2		12	4	7	35
1928	16	20	22	10	6	4	2	3	17	3	2	16	121
1929	14	4	17	11	9	1	4	2	1		1	3	67
1930	5	4	5	4	2	1	1	3	2	5	2	5	39
1931	3	6					1				1	1	12

DEATHS BY MONTHS

	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1927				5	3			2		8	2	3	23
1928	9	7	11	5	3	1	1	1	9	2	1	11	61
1929	8	4	9	6	4	1	2	1	1			2	38
1930	4	3	1	3			1		2	3	2	1	20
1931	2	2											4

CASES AND DEATHS BY SEX

	MALES		FEMALES	
	Cases	Deaths	Cases	Deaths
1927	28	18	7	5
1928	80	39	41	22
1929	33	20	34	18
1930	23	17	16	3
1931	9	3	3	1
Totals	173	97	101	49

AGE GROUPS

Cases	Und. 1	1-4	5-9	10-14	15-19	20-39	Over 40	Totals	Deaths	Und. 1	1-4	5-9	10-14	15-19	20-39	Over 40	Totals
1927	5	2	8	7	4	3	1	35	1927	5	1	4	2	8	2	1	23
1928	4	28	24	30	12	16	7	121	1928	4	10	11	14	8	8	6	61
1929	3	14	13	5	12	11	9	67	1929	1	8	6	3	7	6	7	38
1930	7	8	6	2	9	4	3	39	1930	4	4	2	1	5	2	2	20
1931	0	1	2	2	2	3	2	12	1931	0	1	1	1	0	0	1	4

GONORRHEA IN WOMEN*

CHAS. W. DORSEY, M.D.
DENVER

In presenting a paper on a subject about which so much has been and could be written and which we encounter so frequently, it would be a needless waste of your time to discuss endless details as to etiology, morphology, symptomatology, et cetera. Consequently only brief mention will be made of these subjects, and the major portion of the paper will consist of a resumé of some of the more recent ideas regarding treatment. It is not the purpose of the author to bring forth any new methods, but knowing the tendency to fall into our own routine, it was thought that some of these ideas might be helpful, as he feels certain they are not routinely used by all. All references are to books and articles published since Jan. 1, 1930. For the general consideration, Crossen[1] has been followed rather closely.

In an acute infection, the symptoms are generally vaginal burning and itching accompanied by a profuse yellowish discharge, frequency, and burning on urination. On examination, one finds a reddening and tenderness of the structures immediately surrounding the vaginal orifice; the vaginal walls are rough, hot, and tender; vaginal pressure on the urethra from the top to the meatus produces urethral pus.

The diagnosis in the acute stages is usually of little or no difficulty. The chief points to consider as characteristic of gonorrhea in the differential diagnosis are the rapidity of development and the severity of the symptoms; the involvement of the urethra and the vulvo-vaginal glands or ducts; lack of other apparent cause for the inflammation; the relationship of the appearance of symptoms to sexual intercourse; and the presence of the gonococcus, determined by smears stained with methylene blue, Gram's stain, or Tiedmann's modification of the Gram stain, or by culture. The last is scarcely ever necessary in the acute stages, as the germs are usually present in abundance in the smears.

In chronic cases, the symptoms may be very slight, but the discharge generally persists. Crossen[1] gives eight points to consider in a diagnosis of such cases, as follows: 1. Careful consideration of the clinical history as pointing to previous infection or excluding same. In this, bear in mind that in adult married women, especially multiparae, the disease may cause but slight inflammation of the vagina, and may be entirely missed in the history. Against gonorrhea is inflammation starting from infection following labor, abortion, or instrumentation, provided there had been no previous trouble. 2. Evidence of urethral inflammation, or of the ducts of either or both vulvovaginal glands. 3. The presence in the discharge of a germ presenting the characteristics of the gonococcus. 4. The effect of treatment. The gonococcus is more resistant than most organisms. 5. Tubal complications. 6. Sterility. Persistent sterility is a marked characteristic of gonorrhea. 7. A history of gonorrhea in the husband. 8. The Smith modification of the complement-fixation test, (the cervical secretion fixation test), gave uniform results in forty-five cases of leucorrhea. A culture of the urethral and cervical secretions may be beneficial where a differential diagnosis from diplococcus catarrhalis is necessary.

Treatment of the Acute Stage

Crossen[1] points out three main purposes in the treatment of the acute stage: 1. To prevent extension upward. 2. To completely eradicate the infection from the lower genital tract so that no infective discharge will remain. 3. To relieve the discomfort and to prevent the contamination of clothing and surrounding objects.

At the beginning of the treatment one should bear well in mind the fact that the principal influences preventing upward extension are the resistance of the tissues—a variable quantity, the constrictions of the vaginal canal, and the cervical mucus. Also

*Read before The Denver Gynecological Society. February 25, 1932.

remember that the most favorable time for upward extension is during the last day or two of menstruation and the first few days thereafter. For this reason examination and treatment should be limited to the infected areas, and careful instrumentation should be used so as not to injure or further irritate the inflamed surfaces. For this reason, too strong antiseptics should be avoided. The above author uses somewhat the following treatment:

1. Office Applications.

a. If confined to vulva, the affected parts are painted with 25 per cent argyrol or a 2 to 5 per cent protargol solution, the application being made with a small cotton ball on a dressing forcep. After drying the surfaces, xeroform and boric acid water (1 to 3) is dusted on. The vulva is then covered with a large cotton ball held in place by a T-bandage. If the dusting powder causes more smarting, it is subsequently omitted.

b. If the infection has extended up into the vagina and the tenderness has subsided enough to permit the introduction of a speculum, the same procedure is followed, and all parts are treated as above.

2. Prescriptions.

a. Lysol solution, (a teaspoon to two quarts of water) or potassium permanganate solution, 1-5000, douche.

b. Some sedatives if nervous and sleeplessness prevails.

c. Urinary antiseptic.

3. Instructions.

The patient is advised to remain in bed during the time the symptoms are present, especially during menstruation. The bowels should be kept well open with laxatives. No enemata or rectal suppositories should be used because of the danger of infecting the rectum. The parts should be kept covered with cotton, changing same as often as the inner surface is soiled. The hands should be cleansed after each change of the cotton. The patient may use a weak antiseptic wash every three to six hours, depending upon the amount of the discharge. A vaginal douche is employed every eight hours if the vagina is involved. Office treatment is given every two to three days, if not too irritating. On the return to the office, the treatment as at first visit is repeated, the interval of treatments being increased as subsidence occurs. This is continued until all inflammation is gone. It is inadvisable to swab out the urethra or cerivcal canal or to inject medicine into Skene's glands or the vulvovaginal ducts during the first two or three weeks. If the argyrol does not relieve the itching, use lead and opium wash. A hot sitz bath every four to six hours sometimes helps. Pettit[2] in his recent article limits his description of the treatment of the acute stage to "rest in bed and measures designed merely for the comfort of the patient." Gilbert, in discussion of the above article, suggests rest in bed, ice packs, protein therapy, and sedatives.

Burch[3] follows a let-alone policy in the treatment of the urethritis, believing that if other foci of infection are cleared, nature will heal the urethra. He condemns injection, irrigation, and topical applications and advises sitz baths, urinary antiseptics, and sedatives. He believes in the radical treatment of an infection of Skene's glands, by use of the actual cautery or the injection of tincture of iodine.

Charbonnet[4] claims no originality for his treatment but in simple urethritis uses the application of strong silver nitrate alternating with mercurochrome, first cocainizing. He opens Skene's glands under local anesthesia and destroys them with phenol or the electric cautery.

Gordon[5] uses copious bland irrigations of the vulva and posture drainage—also gentle laxatives and urinary antiseptics in the acute stages. He never treats acute cervicitis.

Pugh[6], writing chiefly of the disease in the male, does not believe in the use of antiseptics, as he feels that none can penetrate all the crypts and kill all the germs. He believes a cure is effected by the protective forces of nature and not by germicides. He has no use for the gonophage. He feels there has been little advance in treatment over a period of thirty years. Pugh is convinced that the intravenous treatment with

mercurochrome (1 per cent with glucose 5 per cent) should be further investigated, as the results obtained by Redewill, Potter, and Garrison in 2053 cases were very favorable. He believes diathermy of especial value in gonococcal infections of the female. In another recent article, the same author[7] describes the symptoms of the acute stages in women, but mentions no treatment. Pugh[8] also damns the gonococcus as the causative factor in sterility but limits his paper to a description of the invasion of the tubes by the organism. In the first of these articles, he states that he uses pyridium and hexylresorcinol by mouth and finds them beneficial.

Sprague[9] emphasizes the psychological aspect and gentleness. He deals mainly with the condition in the male, and most of his paper is devoted to a review of the treatments advised by others. He advises irrigol powder solution douches twice daily for women and balsams for urinary distress if required. He uses lysol in the office for cleansing, followed by diathermy treatments twice weekly. He uses Corbus electrodes for the urethra, vagina, and cervix in that order, treatment being for forty minutes at a temperature of 112° to 116° F. He claims that the discharge disappears and the smears are negative in six to eight treatments. He treats Bartholinitis by local anesthesia and electro-cogulation.

Bayly[10], the Hon. Secretary of the Society for Prevention of Venereal Diseases, (British), gives the following treatments for the acute stages:

1. General. Rest, diet, and vaccine therapy. He believes the latter helps to prevent complications.

2. Vulvitis. Hot antiseptic sitz baths night and morning, using biniodide of mercury 1-8,000, or weak cresol, bathing parts with the same solution frequently between baths.

3. Acute Urethritis. The same treatment as for the vulvitis.

4. Acute Bartholinitis. Fomentations. If an abscess forms, aspirate and inject with 1-20 solution of tincture of iodine or incise and drain. The gland ducts may be injected with 1 per cent solution of acriflavine or a 10 per cent solution of silver nitrate.

5. Vaginitis. Gentle douches of sodium bicarbonate solution, one-half ounce to gallon, during very acute stage; later hot potassium permanganate solution 1-10,000 to 1-8,000, followed by instillation of a tablespoonful of collosal argentum or neo-reargon.

6. Cervicitis. Weak antiseptic vaginal douches. No local treatment.

7. Acute Endometritis. Absolute rest in bed; fomentations; copious hot (115° F.) vaginal douches every six hours, after which a glycerine with 10 per cent ichthyol tampon is inserted. Bayly states that Hobbs uses more active therapy, injecting 10 c.c. of either 10 per cent solution of acriflavine or iodine to which glycerine is added up to the ounce, directly into the uterine cavity, first dilating the cervix.

8. Acute Salpingitis or Pelvic Peritonitis. Absolute rest in bed, long, hot douches, ichthyol and glycerine tampons, and abdominal fomentations.

Deaken[11] is lavish in his praise of pyridium per os in the treatment of acute anterior urethritis, stating that when this drug was used along with his routine treatment the course of the disease was shortened, and there were fewer complications. He also dealt with males.

Donahue[12] does not give his method of dealing with the acute stage, but is a firm believer in diathermy in chronic endocervicitis.

Jordon[13] says, "In the discussion of gonorrhea in women it is necessary for us to admit to ourselves frankly, first that the present day knowledge of the practitioner of medicine is the same as that of fifty years ago, and second that our entire treatment is almost as old as that. If possible we are in a worse predicament than were our colleagues of that day, for they did discover the bacteria and grew them. We have learned many things about bacteria since that day but have relatively retrogressed as far as gonorrhea is concerned." He states that 3 per cent of all females in the United States have gonorrhea between eighteen and

forty, and that 60 per cent of the males have it. He believes we should endeavor to create and maintain an immunity. He uses vaccines only where complications such as arthritis are beginning, then gives them in small doses and pure, not combined. Jordon believes that cleanliness is of the next importance. He considers diathermy of great value as an adjunct to other methods.

Nelson[14], in a most comprehensive summary published from the Massachusetts Department of Public Health, and in which he acknowledges the aid of some forty physicians in the preparation of the material, emphasizes, among others, the following points:

1. There is no specific cure for gonorrhea in the female.
2. The importance of hygiene.
3. Proper douching and sitz baths.
4. Attention to the husband.
5. There is rarely any indication for abdominal surgery in the acute stages of pelvic inflammation.
6. The treatment must follow a logical sequence.

Johnson and Diaso[15] claim excellent results from Aolan injections in both acute and chronic cases of salpingitis, but feel the treatment is only an aid, and not an absolute cure.

Practically all the authors mentioned condemn abdominal surgery during acute pelvic inflammations and feel that, excepting the treatment of Skene's glands, Bartholin's glands, and in some cases acute cervicitis, surgery should be used for only such complications as pelvic abscess, ruptured tuboovarian abscess, et cetera. Most surgeons agree that in such cases vaginal drainage is of far greater value than radical surgery.

In a small series of cases, the author has had best results from a more or less "hands-off" policy, using only those measures which act to relieve the patient and possibly to aid in the prevention of spread of the disease and complications. The following system has been used:

1. Argyrol 25 per cent and ichtholdine 10 per cent are applied carefully to the affected parts, using cotton applicator. In cases of acute cervicitis, a cotton tampon of the ichtholdine is inserted firmly against the cervix and the patient is instructed to remove the same in two hours. The author feels that is sufficient time to allow as much absorption and penetration of the drug as will occur, and does not believe in blocking drainage by leaving the tampon in place a longer time.
2. Pyridium is given orally. The speed with which a urethral discharge has vanished under this urinary antiseptic has been very gratifying.
3. Aolan, 5 c.c., is given every other day during the acute stage, in the belief that it helps to prevent future pelvic complications.
4. In necessary cases, the Skene's glands are removed under local anesthesia, following the technic of Curtis[16], except that a sterilized bent hair pin is used in place of the round needle. Bartholin abscesses are incised, packed, and permitted to heal from the base toward the outside.
5. Advice for general care is given, such as bed rest, douches, forcing fluids, dietary and sexual restrictions.

Treatment of the Chronic Stage

Because of limitation of time, it will be possible to sum up but briefly the ideas presented by the various authors mentioned. It seems to be the consensus of opinion that less radical and mutilating procedures should be followed in the treatment of residual pelvic disease. Jones, in a film prepared in cooperation with the Petrolagar Laboratories, states that he feels that surgery for such conditions should not be resorted to for two years after the acute infection. Huggins[17] feels that conservatism in the sense of leaving in chronically infected tubes over a period of years may be the worst form of radicalism, because of the danger of invalidism from effect upon the ovary. He also advocates immediate operation within twenty-four hours of an acute attack, provided said attack is at least a third or fourth recurrence. Henry[18] reports six chronic cases of two to nine years duration treated with deep x-ray therapy with good results. Cauterization of the cervix is used routinely by some. Others advise diathermy, nearly all of whom use the Cor-

bus electrodes. Vaccines and foreign proteins have their adherents. Some use a combination of these four measures, or a portion of them.

The author, in his small series, has been fortunate in having no pelvic complications following an acute infection. In several cases seen first in the chronic stage, and apparently limited to the cervix, good results were obtained by cauterization. One case of three years duration, with an acute tubal flare-up, quieted promptly under general care and Aolan injections. A Rubin test revealed closed tubes, and it was impossible to open them on three attempts, using a pressure of 180 mm. Operation was advised but refused. She has had no further attacks in the past fourteen months.

In dealing with chronic urethritis, the author feels it helpful to change the drug used for irrigations about once each month, and to give bladder instillations of one ounce of a 10 per cent argyrol once or twice a week. He alternates between acriflavine, ½ per cent, and pyridium, 1-8000, in the urethral irrigations. In this manner the discharge seems to be controlled more rapidly than when just one agent is used consistently, possibly because the organisms develop a tolerance to a certain drug after a period of time.

Conclusions

1. There has been no specific cure found for gonorrhea in women, but definite advances have been made in treatment of the disease, especially from the point of prevention of complications during or following the acute stage.

2. There is a growing tendency to be less radical and mutilating in the surgical procedures employed.

3. In spite of the interest manifest in this disease, and regardless of all the preventive measures that have been attempted, as long as human life persists the incidence of the infection will probably change very little if at all, and our efforts must be directed toward more rapid and certain methods of definite cure.

REFERENCES

[1]Crossen, H. S.: Diseases of Women, C. V. Mosby Co., 1930.
[2]Pettit, A. V.: California and Western Medicine 35: 103-107.
[3]Burch, L. E.: Trans. Am. Gyn. Soc. 54 (1929): 197-206.
[4]Charbonnet, P. N.: Med. Jour. and Record. 131: 493-495.
[5]Gordon, C. A.: Am. Jour. Surgery. 8: 304-307.
[6]Pugh, W. S.: Internat. Clinics. 2: 150-161.
[7]Ibid. Am. Med. 37: 343-345.
[8]Ibid. Med. World. 49: 235-236.
[9]Sprague, S.: Rhode Is. Med. Jour. 14: 55-58.
[10]Bayly, H. W.: Venereal Diseases. Davis, 1930.
[11]Deaken, R.: Jour. Mo. St. Med. Assn. 28: 123-125.
[12]Donahue, C. D.: Northwest Med. 30: 282-285.
[13]Jordon, W. P.: Jour. Med. Assn. Georgia. 19: 196-200.
[14]Nelson, N. A.: New Eng. Jour. of Med. 204: 424-430.
[15]Johnson, H. H., and J. S. Diaso: Med. Jour. and Record. 131: 416-417.
[16]Curtis, A. H.: Textbook of Gynecology. W. B. Saunders Co., 1930.
[17]Huggins, D. R.: Am. Jour. Obst. and Gyn. 23: 186-194.
[18]Henry, C. M.: Radiology. 16: 47-51.

EXPERIMENTAL PRODUCTION OF BLOOD CHANGES SIMULATING PERNICIOUS ANEMIA

PRELIMINARY REPORT

In a study of the influence of diet upon the bile output of cholesterol and bile salts, constant changes in the blood have been observed.

Dogs, in whom a portion of the common duct had been resected and a muco-cutaneous fistula of the gallbladder established, presented a very definite course. At the end of the second week the color of the bile and its chemistry were altered. Blood examination at that time gave the picture of a secondary anemia. The subsequent days showed a decided loss of weight. If a diet of liver and glucose was given, recovery was rapid, and within a few days there was no apparent effect from the total loss of bile. The diet response was so evident that the question arose as to whether the etiology of pernicious anemia could be attributed to the liver. The animals were again allowed to lost weight, and liver was added to the regular diet. This was repeated for a period of three months. Blood examination at that time then gave results resembling pernicious anemia.

Frequent laboratory observation by others interested in this subject warrants a preliminary report.

H. J. SIMS, M.D., Denver.

PUBLIC HEALTH NOTES

Editor: J. W. AMESSE, M.D.

More About Budgets

The wise health officer and public health executive is the one who has long before this made a painstaking scrutiny of his entire budget to be certain that he is rendering a dollar's worth of service for every dollar expended. He must bear in mind, too, that the 1929 dollar is now worth nearly a dollar and eighteen cents. With these two things in mind, it is surprising how frequently economies and improved methods can be adopted without seriously curtailing important work and still permitting a significant reduction in total budget. The health administrator who has already done this is in an enviable position when the time comes for his interview with the Taxpayers' League.

This is part of the cure for the situation described in the July issue of the New Mexico Health Officer by Doctor J. Rosslyn Earp, State Health Officer:

> We listened to a few of these budget hearings. Our interest, of course, was centered in the health budgets. Schools, roads, feeding of prisoners, etc., moved along in steady processions. They were familiar subjects, understood and thus could be discussed rather fairly on their merits. One saw that public health rarely was on a friendly, intimate, sympathetic relationship with everyday life and thoughts. At some of the hearings it was passed by, as one would pass by a respectable but rather mysterious stranger—a professor, an artist—of whom no ill was known and little good.

If your aims, ideals, objectives, and attainments are properly presented to your community, there is no reason why you should lack friendly, intimate, and sympathetic relationship. There is no work undertaken by governments, whether national or local, which by its very nature is more friendly, intimate, and sympathetic. In addition to this, there is no expediture made by government which represents a better investment than that for the conservation of a community's human assets. If your people do not understand this it is because they have not been told or have not been told in language which they understand. Above all, the health administrator is a health educator, or, as Doctor Storey would put it, a health informer. It will pay us to give as much study as the advertisers do to this science and art of informing the public. In this connection, it will be well worth while to review an article by Professor Franklin Fearing in the American Journal of Public Health for June, 1929, page 650.—News Letter, American Public Health Association.

Echo Answers—Why?

Why, on the day after the increased postal rates went into effect, should the San Francisco Post Office receive more than 10 per cent of its mail with insufficient postage? Why should the widow of the late Theodore Roosevelt be embarrassed with numerous letters from persons who believe that Franklin Roosevelt is her husband or son? Why do we still have smallpox? Why are 70 per cent of the children of susceptible age still unprotcted against diphtheria in many places? Why is the health department so often in the basement of the city hall? Why have some health department budgets been the first to suffer?—News Letter, A. P. H. A.

Fewer Infant Deaths

The lowest infant mortality-rate ever attained by the cities of the Birth Registration Area of the United States was reached in 1930, the American Child Health Association has announced. The rate, 62.2 deaths for every thousand live births, is four points lower than that of the preceding year, when it was 66.2. Of the 860 cities in the registration area, Seattle heads the list of those with a population of over 250,000 with a rate of 37; San Francisco ranks next with 40; and Portland, Ore., third, with 41. Among the ten largest cities, Chicago and St. Louis tied for first place with a rate of 54. Nine of these show lower rates than those of 1929. Lon Beach, Calif., leads cities with populations between 100,000 and 250,000 with a rate of 43; Oak Park, Ill., those between 50,000 and 100,000, with 28; and Alameda, Calif., those between 25,000 and 50,000 with 21. Among the smallest cities, Shorewood, Wis., leads with a rate of 0. The announcement of these statistics for 1930 was delayed because of the extra work in the Bureau of the Census in mak-

ing the 1930 census, which prevented the bureau from issuing as early as usual its summary of infant mortality figures.—"Diplomate."

What Health Price Is Child Labor?

Recent surveys and news articles reveal the inadequacy of present legislation to protect the adult health and efficiency of the child worker and bring to light the short-sightedness of law-making and law-enforcing agencies.

Of the 2,000,000 child laborers in the United States, 667,118 are under sixteen years of age. Now as well as before the depression there is a tendency for children's work to be confined to routine jobs lacking opportunity for advancement. A study made a few years ago in one of our great industrial centers showed that a large percentage of working children were employed in badly ventilated rooms in plants with poor sanitation or in dusty occupations. About half the children studied had physical defects, flat feet, spinal curvature, eye-strain, and heart defects. Boys and girls of this age are immature, easily fatigued by over-long hours or night work, and as the figures on industrial accidents show there are poor risks in any form of hazardous employment.

Last year the National Child Labor Committee's follow-ups on children permanently injured in Illinois and Tennessee show the interests of the children are not safeguarded.

The children do not receive adequate compensation and sometimes not even the amount to which they are entitled. The compensation money was not used for their education or invested for their future. Few children receive vocational re-education.

Always and especially during depression there will be times of idleness between the school and the job or between jobs, and these periods of loafing about street corners and pool rooms may be more harmful than the employment itself. The present solution to the problem seems to be through the expansion of a school service, more school scholarships, better health requirements for work permits, stricter supervision of part and full-time work of children. The budgets should not be balanced at the expense of today's children and the nation's future health, as is the tendency in the present cry for cheaper schools.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

EDITOR: J. J. WARING, M.D.

BOOK REVIEWS

League of Nations. Quarterly Bulletin of the Health Organization. Volume 1, No. 1. March, 1932. Geneva. 157 pages. Price $2.00 yearly subscription.

The first number of this publication, issued at Geneva, has just appeared. While not an official organ of the League of Nations, its purpose is to make more accessible and consequently more widely known the transactions of the health organizations of that great international conference. Up to this time it was necessary to search through the annual reports of the various committees and of the league itself to obtain any comprehensive view of the coordinated efforts among the member nations toward the control of communicable disease and allied problems; now we have a complete digest attractively presented at small expense. This inaugural issue contains a valuable paper on the present needs of medical education by the eminent sanitarian, Sir George Newman, Chief Medical Officer of the Ministry of Health and of the Board of Education of England. The author lays special stress on the value of preventive medicine. It is the first of a series of articles to be devoted to the study of the problems raised by medical training in European and overseas countries. There are exhaustive reports on immunization against diphtheria, on the milk supply of North American cities, on the results of anti-rabies treatment at the Pasteur Institute, and on the medico-sociological features connected with the great floods of 1931 in China. A contribution on tropical pneumonia, by R. Gauthier of Singapore, presents surprisingly complete statistics on this disease from equatorial regions, with a plea for public interest proportionate to the problem. The Quarterly Bulletin is available in the United States only through the American Agent, The World Peace Foundation, 40 Mt. Vernon Street, Boston.

J. W. AMESSE.

The Chemistry of Tuberculosis. A compilation and critical review of existing knowledge on the Chemistry of the Tubercle Bacillus and its Products, the chemical changes and processes in the host, and the chemical aspects of the treatment of tuberculosis. By H. Gideon Wells, M.D., Ph.D., director of the Otho S. A. Sprague Memorial Institute and Professor of Pathology in the University of Chicago, and Edmond R. Long, M.D., Ph.D., director of the Laboratory of the Henry Phipps Institute for the study, treatment, and prevention of tuberculosis, and Professor of Pathology, University of Pennsylvania, formerly Professor of Pathology in the University of Chicago. Second Edition thoroughly revised. Baltimore: The Williams and Wilkins Company. 1932. 470 pages. Price $7.00.

The second edition of this well-known book shows some important changes. The first section, on the chemistry of acid fast bacteria, has been almost entirely rewritten. The new material represents to a considerable extent the investigation of the chemistry of the tubercle bacillus initiated by the National Tuberculosis Association. A clear account is given of this work which has greatly increased our knowledge of the phosphatide and of the specific carbohydrate of the tubercle bacillus. A new chapter, dealing with specific products in the culture medium describes Miss Seibert's methods for obtaining a purified and highly potent tuberculin.

The second section, dealing with the changes in the tuberculous host, shows only minor changes. Due to the regretted death of Dr. Lydia M. DeWitt, who wrote the third section, on chemotherapy, this part has now been revised and brought up to date by the other two authors.

The entire book can be highly recommended to those who want a reliable guide through the difficult and intricate field of the chemistry of tuberculosis. Although much attention is given to American work, the foreign literature has not been neglected, and the numerous references form a valuable feature of the work.

The publishers have given the old edition a tradein value, to be applied on the purchase of the new edition. It is to be hoped that other publishing houses may follow this example.

CHARLES H. BOISSERVAIN.

Studies From the Rockefeller Institute for Medical Research. Reprints. Volume 77. Published by the Rockefeller Institute for Medical Research, New York, 1931. 628 pages.

This volume of reprints from the Rockefeller Institute will be of unusual interest to students of tuberculosis. It contains the "Studies on Tuberculosis" by Sabin, Doan, and Forkner, which first appeared as a supplement to the December 1930, number of the Journal of Experimental Medicine. They describe Dr. Sabin's well-known work on the tissue reaction to lipoids from the tubercle bacillus, and on the relation of the monocyte-lymphocyte ration to resistance in tuberculosis. Another article by Sabin and collaborators tells of the effect of minimal amounts of tubercle protein, which is often present as an impurity in preparations of the specific polysaccharide from the tubercle bacillus. This reviewer likes to think that Dr. Sabin's interest in tuberculosis dates back to her childhood spent in Central City, even though at that time no "Camille" entertained the population there by dying from tuberculosis.

The rest of the volume is taken up by articles on a wide variety of subjects, dealing with different phases of the work of the Institute in the fields of immunology, biophysics, chemistry, physiology, and animal pathology.

CHARLES H. BOISSERVAIN.

Psychology and Psychiatry in Pediatrics: The Problem. Report of the Subcommittee on Psychology and Psychiatry, Bronson Crothers, M.D., Chairman. White House Conference on Child Health and Protection. New York, London: The Century Co. 146 pages. Price $1.50.

This report is, in sum and substance, a statement of the problem of the inter-relationships of psychiatry, psychology, and pediatrics in the study and care of the growth and development of the personality of the child. It is based upon: (1) extracts from discussions of the subject by prominent figures in the respective fields; (2) analyses of questionnaires sent to psychologists, pediatricians, and psychiatrists in which they were asked to state their views of the problem and of one another; (3) and upon reports from various clinics and schools actively engaged in work with children in which an idea as to procedure and organization is given.

Apparently there is considerable resentment on the part of pediatricians, and to a lesser extent of psychiatrists, against the intrusion of lay workers and psychologists into the field. In this writer's opinion there is plenty of room for varied disciplines in approaching a subject so new and untilled as this one is. It only remains for proper organization to provide an equitable division of labor whereby psychiatrist, pediatrist, and psychologist may work conjointly and without rancorous dissension. There is no doubt that the ultimate responsibility for the treatment of the so-called behavior disorders of childhood must rest with the general practitioner and pediatrician. It is also clear that their inefficiency in this work has brought about the so-called intrusion of psychiatrists and psychologists. In the past there has been the tendency to organize behavior clinics away from the teaching hospitals and medical schools. This has isolated the movement from the very group to whom it should be of greatest significance. Although the report does not offer such a proposal, it is this writer's opinion that the movement must be more closely correlated with the needs of the medical profession and that behavior clinics must become definitely identified with medical teaching.

Let no one be misled by the tables (pages 14 and 15) on curricular hours in psychiatry in the various medical schools. It is hopelessly inaccurate and the conclusions drawn from it suffer accordingly.

R. A. JEFFERSON.

Public Health Organization. By the Committee on Public Health Organization of Section Two, Public Health Service and Administration, of the White House Conference on Child Health and Protection. The Century Company, 1932.

The volumes coming out of the White House Conference on Child Health and Protection appear to be almost staggering in number as well as content. One of the latest valuable reports to be issued is that on public health organization by the committee of which Dr. E. L. Bishop, Health Officer of the State of Tennessee, is chairman. The compilers of the book deserve credit for both the material assembled and its arrangement.

Content is historical and also fact-finding There is the gist of previous important studies and also the summary of findings of the 1929 study made by Dr. Bishop's committee. Rural, city, and state plans of administration are outlined and the numerous and well-prepared tables show many comparative measurements of services rendered. The Federal Department of Health is described and brief accounts given of the development of the services of non-official agencies. The training of public health personnel, the relationship of practitioners of medicine and dentistry to health programs, health aspects of food control, and both general and specific recommendations are treated in considerable detail. The administration of child health work as part of official health programs is given a special chapter. The book is valuable as a general reference work on the subject, and many of the chapters are interesting to read in their entirety.

It is to be hoped that this and its companion volumes may stimulate communities to do all

within their power to improve the disastrous state of affairs that now exists over the world. Ignorance of child health needs and of the way to meet them may be in large measure responsible for present conditions.

JESSIE I. LUMMIS.

Intracranial Tumors. Notes Upon a Series of Two Thousand Verified Cases With Surgical Mortality Percentages Pertaining Thereto. By Harvey Cushing, Professor of Surgery, Harvard Medical School Surgeon-in-Chief, Peter Bent Brigham Hospital, Boston. 1932. Springfield, Illinois: Charles C. Thomas, Publisher. Baltimore, Maryland. 147 pages, price $5.00.

This monograph, the basis of a report to the International Neurologic Congress in Berne, 1931. is a clinico-pathologico-statistical study of 2,000 cases in the author's clinic in thirty years.

Case material is presented by groups following the well-known Cushing-Bailey classification. Presentations are well selected to illustrate the various points under consideration, but the fairly extensive bibliography is drawn only from contributions from the author's clinic.

A number of interesting conclusions are to be found throughout the book, there being no general surview as such. Exception might be taken to the statement that, "The day may well enough come when certain surgeons will find enough to keep themselves fully occupied by attending to tumors of a single type."

The most noteworthy phases of the work are excellent mortality statistics, both case and operative, and discussions of the evolving technic that has contributed to a steadily decreasing mortality. Local anesthesia has come to be the method of choice for obvious and well presented reasons. Agreement cannot be had unqualifiedly with the statement that little more remains in the development of technic for extirpation of non-malignant growths, though certainly no criticism may be had of the author's hope for new methods of attack and control of the metastatic types.

Ray therapy, with and without surgical exposure, is considered, such cases being cited as to leave the impression that few new growths are in the last analysis benefited.

The presentation by a master of such a mass of well studied material must be of vast importance and the one lesson emphasized throughout cannot be too much stressed: Study the patient.

A point worthy of comment, in that it may well settle a moot point, is the arbitrary placement of a point where deaths may properly be said to be operative. After setting up the well known deaths occurring in preparation, following enemata, et cetera, the author fixes the time of initial scalp incision as being the time when mortality becomes properly "operative."

"This report which is certainly the last I shall ever attempt to make on the subject of brain tumors as a whole," is destined to occupy a secure place in the literature for its scope and analysis.

PHILIP WORK.

Huxley, Prophet of Science. By Houston Peterson. Longmans, Green & Co. 1932. $3.50.

As the summer breeze brings to the wild deer the scent of rich feeding grounds, this book wafts through sixty years the spiritual essence of the renaissance of biology.

Huxley had already established a reputation as an outstanding investigator in zoology and an original thinker in all fields of cultural interest when, in 1859, Darwin published his Origin of Species.

Never in history had there been another such example of lese majeste as this affront to the smug complacency of British proprieties and implicit overthrow of the basis of Scriptural faith.

Victorian conservatism, respectability, and culture coalesced in a unit to crush the impious declaration which implied the fiction of Biblical miracles and asserted the brute origin of man.

Darwin could perceive, unfold, and expound the truth, but his gentle nature and feeble body ill-fitted him to defend it against the onslaught of a fanatic herd.

Far different was Huxley: by training, remarkably equipped in all the lore of biological science and geology, an independent student in psychology and an original thinker in philosophy, wonderfully versed in the lore of classical literature and a master of literary style; by nature, aggressive to the verge of recklessness, truculent in his intolerance of sham, entrenched despotic privilege. Like nothing was he so much as a rational Don Quixote riding to and fro through the world with his lance couched, prepared to attack, without recking the cost, any who failed in obeisance to his fair Lady, and that Lady was Truth.

It was Huxley who exalted and glorified Truth as the breath of life to man—and especially for the man of Science, as a lamp unto his feet and a light unto his path—for his richest verbiage was likely to be culled from the Scriptures.

We cannot here depict a controversy lasting forty years. The student of that history can hardly fail to be enthralled with the splendor of the intellectual conceptions and the elegance in the art of expression which marked those disputations recorded in the periodical literature of the late decades of the last century.

The child born today thinks different thoughts, in a different way, and from a different point of view because of them.

The "Life" by Houston Peterson, barring a certain drag in the first chapter, is a vital panorama of the period of intellectual gestation in science preceding our own era, which accumulates in interest to the last line of the book.

HENRY SEWALL.

Surgical Errors and Safeguards. By Max Thorek, M.D. Surgeon-in-chief, The American Hospital, Chicago; Attending Surgeon, Cook County Hospital; Corresponding Member, Societe Des Chirurgiens De Paris, France; Associate, Royal Academy of Medicine, Torino, Italy; Honorary Corresponding Member, Egyptian Medical Association, etc. With a Foreword by Arthur Dean Bevan, M.D., Professor and Head of the Department of Surgery, Rush Medical College of the University of Chicago. 668 Illustrations, many colored. Philadelphia, Montreal, London: J. B. Lippincott Company. 683 pages. Price $10.00.

This book has been reviewed with much interest. It differs greatly from the ordinary textbooks on surgery as the idea is not to give methods of diagnosis, of operating and of technic, but rather how to avoid technical errors and complications and how to act when faced with the abnormal circumstances which constantly present themselves in surgical practice.

The book is particularly valuable to one who is acquiring experience, though there is much of practical value to the busy surgeon. Observations are made largely from the author's experience,

but many valuable suggestions come from his surgical confreres.

There are many valuable suggestions concerning the condition of the pre-operative patient, choice of operation, technical complications, different anesthesias, blood transfusions, post-operative complications, aids from the laboratory and suggestions concerning errors in judgment, surgical accidents, and complications which may be avoided.

Following the above subjects the remainder of the book is arranged in chapters which consider the operation from a regional standpoint—the approach, choice of operation, technical difficulties. and regional complications.

The book is well worth careful perusal and will be found of value.

C. B. INGRAHAM.

Surgery with Special Reference to Podiatry. By Edward Adams, M. D., Professor of Surgery, The First Institute of Podiatry of New York. Int. Journal of Surgery Co., New York, N. Y. 439 Pages. 1932.

This book, which purports to give special information about Podiatry, which word the medical dictionary defines as "treatment of disorders of the feet," has only about twenty pages out of a total of 480 which have any reference to foot conditions per se. Instead, it is a compendium of general surgical knowledge, ranging from bacteriology to anesthesia, a compilation of generally known surgical facts and procedures.

H. W. WILCOX.

Accidental Injuries, The Medico-Legal Aspects of Workmen's Compensation and Public Liability. By Henry H. Kessler, A. B., M. D., F. A. C. S., F. A. P. H. A. Medical Director, New Jersey Rehabilitation Clinic; Formerly Medical advisor, New Jersey Workmen's Compensation Bureau; Consulting Orthopedic Surgeon, Irvington General Hospital and Essex County Hospitals; Associate Orthopedic Surgeon, Newark Beth Israel Hospital; Assistant Orthopedic Surgeon, Newark City Hospital, Hospital and Home for Crippled Children; Chairman of the Committee on standard practices in compensation for occupational disease, and Chairman of the subcommittee on standards of diagnosis and prognosis of lead poisoning, American Public Health Association; Member of the Society of Medical Jurisprudence; Medical Director of the occupational disease clinic in the New Jersey Department of Labor. Illustrated with 157 engravings. Philadelphia: Lea and Febiger. 698 pages. Price $10.00.

Even the most experienced surgeons often differ so widely in their estimates of disability that the establishment of common, practical standards has become a necessity, and this the author has accomplished in a remarkable manner.

To the surgeon doing even a small amount of compensation practice the book contains a fund of valuable facts. A brief history of Workmen's Compensation and its development is given. The functional basis of estimating traumatic disability is most ably treated. The reciprocal relations between trauma and constitutional affections, the subject of occupational diseases and the rehabilitation of physically handicapped persons are dealt with in a most practical manner.

Of particular usefulness are the estimates of disability given in percentages for the various types of injury, such as fractures, amputations, etc. With the table of estimates as a guide, even the inexperienced surgeon may fix his percentage of disability with more fairness to both Claimant and Company.

Of special interest is the chapter relating to the compensability of appendicitis and hernia. Another chapter of interest deals with the relation of trauma to malignancy.

The language is clear and concise and the author, as a result of his long experience in this field, is eminently fitted to be the writer of such a useful work. It is a book that fills a special niche, and should find a place not only in every doctor's library but on the work desk of every Insurance Company and Industrial Commission interested in Workmen's Compensation.

HASKELL COHEN.

The Failing Heart of Middle Life. The Myocardosis Syndrome, Coronary Thrombosis, and Angina Pectoris. With a Section upon The Medico-Legal Aspects of Sudden Death from Heart Disease. By Albert S. Hyman, A. B., M. D., F. A. C. P., Cardiologist to the Beth David and Manhattan General Hospitals; Attending physician and Cardiologist to the Hospital for the Aged; Consulting Cardiologist, Haarlem Day Nursery; Chief, Cardiac Clinics, Beth David and Manhattan General Dispensaries; Director, Witkin Foundation for the Study and Prevention of Heart Disease, New York, N. Y., and Aaron E. Parsonnet, M. D., C. M., F. A. C. P., Attending Physician and Cardiologist, Newark Beth Israel Hospital; Cardiologist, Evening Heart Clinic, Newark Beth Israel Hospital; Medical Director, Home for the Aged; Fellow, Witkin Foundation for the Study and Prevention of Heart Disease, N. J. With a preface by David Riesman, M. D., Sc. D., F. A. C. P., Professor of Clinical Medicine, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania. With 166 illustrations, some in colors. Philadelphia: F. A. Davis Company. 538 pages. Price $5.00. 1932.

Perhaps a better title for this book would have been "The Coronary Arteries in Middle Life," for the greater portion of the subject matter is related to coronary artery changes. The authors employ the newly coined term myocardosis to indicate the earliest manifestations of coronary vessel and myocardial insufficiency. That this is not a simple ageing process is indicated by the figures of Willius who, "in a study of 700 persons over 75 years of age, including 385 patients with clinical evidence of heart disease, found only 172 with coronary disease."

The introduction is well done. It is pointed out that a "differentiation between the wearing out process and the alterations effected by disease becomes a special problem for the clinician of this period." That the presence or absence of murmurs and pulse irregularities furnishes an inadequate yardstick in the recognition of coronary artery disease is emphasized and that in the patient beyond 40 any heart investigation to be of value must represent a complete cardiovascular survey.

The chapters devoted to anatomical considerations offer unusually clear descriptions which serve to explain how extensive narrowing may occur in the absence of symptoms and why thrombotic occlusion does not always—as formerly taught—lead to early death. The excellent cuts accompanying these chapters are from preparations by Yaguda.

The anginal syndrome is well presented. An appended bibliography shows 1,250 articles reviewed, all dealing with some phase of coronary

artery disease. An abundance of cuts of postmortem specimens and numerous electrocardiograms add materially to the value of the text With the interpretation of some of the latter the reviewer does not agree.

There appears to be an unnecessary division into chapters, and at time the text impresses one as somewhat verbose, but these are really minor criticisms. There is so much of value that one may readily overlook these faults. To those of our profession not especially interested in heart disease, a synthetic liquor formula on page 210 may add to the value of the work.

An entirely new feature is the inclusion of several chapters devoted to the industrial and medicolegal phases of heart disease. To the examiner required to report on the possible cardiovascular effect of trauma this portion of the book will prove most interesting and may prove of considerable value because of the court opinions which are an important feature of this section.

C. T. BURNETT.

The Science of Signs and Symptoms In Relation to Modern Diagnosis and Treatment. A textbook for General Practitioners of Medicine. By Robert John Stewart McDowall, D. Sc., M. B., F. R. C. P. (Edin). Professor of Physiology King's College, University of London, Examiner in Physiology for the University of London, the Royal College of Physicians and the Royal College of Surgeons, formerly Clinical Tutor in Medicine, University of Edinburgh. New York. D. Appleton and Company 440 pages. Price $7.00. 1932.

The title of this volume of 400 odd pages and, incidentally, a selected bibliography of considerable scope, is obviously somewhat misleading. It is not in any sense a physical diagnosis, but rather a text book of clinical physiology, in fact, an enlargement of a previous edition by the same author (Clinical Physiology, D. Appleton and Company, 1927).

As a text book of clinical physiology it can be very highly recommended to students of clinical medicine. The attempt of the author to bring one of the basic sciences of medicine close to its clinical application is eminently successful.

W. S. DENNIS.

Diseases of the Chest and the Principles of Physical Diagnosis. By George William Norris M. D. and Henry R. M. Landis, M. D. Fourth Edition, Revised. W. B. Saunders Company. 954 pages. 478 illustrations. Price $10.00.

By all odds this is the best work in its particular field. It is indispensable for the proper instruction of the student and invaluable to the clinician for ready reference.

The beautiful photograph by Norris of Fetterolf's frozen sections of the thorax assist greatly in the visualization of normal and pathological relations. The chapter by Charles M. Montgomery on the Transmission of Sounds through the Chest, largely based on original studies, clarifies the difficult subject of acoustics in diagnosis. Edward B. Krumbhaar has an excellent chapter on the Electrocardiograph in Heart Disease. The numerous important bibliographical references scattered throughout the book and conveniently placed at the bottom of the pages are a particularly valuable feature of an altogether admirable work.

JAMES J. WARING.

Hospitals and Child Health; Hospitals and Dispensaries; Convalescent Care; Medical Social Service: Reports of the subcommittees, White House Conference on Child Health and Protection. on these interlocking divisions of medical service. New York: The Century Co. 279 pages. 1932.

The intimate relation between hospital care, management of convalescence, and medical social service prompted the committees on these important elements of child health and protection to publish their exhaustive reports in one volume. The various phases of the problem have been the subject of intensive investigation throughout the United States and the conclusions and recommendations will prove invaluable to those interested in the early attainment of the ideals expressed at the National Conference. The field of medical social service, newest among the agencies designed to uncover the social complications of sickness, is particularly well covered.

J. W. AMESSE.

Imhotep to Harvey. Backgrounds of Medical History. By C. N. B. Camac, M. D., Assistant Professor of Clinical Medicine, College of Physicians and Surgeons, Columbia University, New York. Foreward by Henry Fairfield Osborn, Sc. D., Ll. D. New York. Paul B. Hoeber, Inc. 324 pages. Price $3.75. 1931.

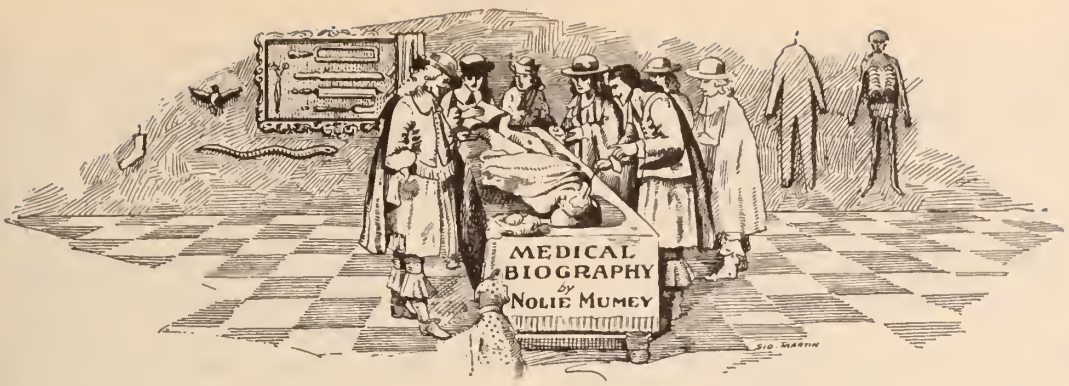
This octavo volume of 324 pages gives the background of medical history. It comprises ten chapters describing medicine before the Greeks, through the Middle Ages, the Renaissance, and the beginning of modern science.

The last few pages are devoted to a list of historic records with quotations from the works of various pioneers in medicine. A list of books concerning the history of medicine makes this volume useful for reference on that subject.

NOLIE MUMEY.

Japanese Doctors Pay $240 a Pound for Gallstones

Gallstones are one of the most startling products that Los Angeles exports to Japan. Perfect beef gallstones are quoted on the open market at $240 per pound, so it goes without saying that this is one of the most carefully handled cargoes. The gallstones are shipped in small wooden boxes, one pound to a box, and are carefully packed in cotton wool. They are highly insured against pilferage and theft in addition to the ordinary maritime insurance and they are usually sent by registered insured parcel post. Great care is taken to have the gallstones perfectly dry and free from mold as they are used by Japanese doctors in the preparation of certain medicines.—From Los Angeles Times, Sunday Magazine.



SILAS WEIR MITCHELL

(Continued from October)

Drs. Mitchell and Reichert found that snake venom lost its virulency when mixed with a solution of potassa or soda, and they recommended potassium permanganate as an antidote for snake bites. These investigations were carried out for many months before the two substances were discovered. The methods employed in doing the research was the foundation for the work that other scientists have since followed.

Dr. Mitchell's interest in physiology began during the years 1851-1852 while in Paris. There he came in contact with, and under the influence of the great French physiologist, Claude Bernard. The inspiration he received from that enthusiastic teacher lasted throughout his whole career; it heightened his zeal and stimulated his mind for scientific investigation. His researches on the physiology of the cerebellum were continued over a period of six years, 1863-1869. These studies were made on pigeons, birds, rabbits, and guinea pigs. The cerebellum was ablated eighty-seven times, and 260 experiments with irritants were done. Investigations were made on the action of morphine and atropine and on nitrate of amyl to abort epileptic seizures. He also contributed some original investigations on the formation of uric acid crystals, the blood crystals of the sturgeon, with the study of the blood of various animals.

The latter study he utilized in aiding the police. A man had reported being robbed on several occasions, stating he had wounded the robber. He showed some blood stains as evidence of the conflict. With only the trace of blood spots near a window the police were not able to solve the mystery and were victims of much ridicule by the newspapers. Dr. Mitchell of his own initiative removed some of blood, examined it, and advised the police to look for a dead chicken. The result was the discovery of the dead fowl in the basement of a house where the supposed robber had been shot.

Among Dr. Mitchell's important contributions to physiology belongs his study of the pulse in inspiration and expiration, inhalation of cinchona salts, the effects of glycerin and alcohol on the isolated hearts of frogs and turtles, and the production of cataracts on the eyes of frogs.

As a psychologist he was gifted with keen observation and insight which enabled him to look into the most perplexing maladies. This is well represented in some of the characters of his novels, such as, "In War Time", "Characteristics", "Dr. North and His Friends", "Constance Trescot", and "Far into the Forest".

Dr. Mitchell had true scientific curiosity, projective imagination, and a keen sense of realism. Dr. John H. Gibbon said, "I would say that S. Weir Mitchell was a great psychologist, and having a wide knowledge of general medicine and being in addition a real scientist, he was as a natural result no mean analogist".

Dr. Mitchell's capacity for continuous work enabled him to finish many projects which perhaps would not have been carried through by others. His lesson was, "The mind rests, not by doing nothing, but by changing its occupation".

(To be continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

Important Rulings by The Publication Committee

SEVERAL departures from previous custom in the relationships between Colorado Medicine, its authors, and the donors of review copies of new medical books were ordered by the Committee on Publication at its October 7 meeting. The new rulings are designed both to work economies and to remove the possibility of misunderstandings that have occasionally arisen before. By direction of the Committee these rulings are presented here for the information of all readers.

Hereafter eight published pages (approximately 4,800 words without cuts) will be the positive limit of length for original articles unless the author wishes to reimburse the journal for the cost of preparing additional pages.

Under previous rulings and custom, authors paid half the cost of all cuts published with their articles, the journal paying the remainder, except that the journal carried the full cost of cuts used with papers by the invited guests of the Annual Session. This is now changed as follows: An author will not be charged for the first five dollars worth of cuts used with his article; he will be charged 50 per cent of the next ten dollars worth of cuts, and will be charged the full amount of all cost of cuts above fifteen dollars.

Hereafter all books received by Colorado Medicine for review will be retained in the jurisdiction of the editorial department under the direction of the Scientific Editor until reviews of them have been received, at which time they will be turned over to the Library of the Medical Society of the City and County of Denver for custody. The Scientific Editor will assign all such books to reviewers.

Hereafter all discussion of Annual Session papers will be published in abstract. Discussers will be provided with a transcript of their remarks so that they may themselves abstract them if they so prefer, subject to final abstracting and editing by the Scientific Editor.

MEDICAL SOCIETIES

BOULDER COUNTY

The Boulder County Medical Society met at the Boulderado Hotel, Thursday, October 13.

A five-reel motion picture dealing with diagnosis and treatment of skin cancers formed the scientific program. The material for the film was gathered by Dr. J. C. Bloodgood at the Johns Hopkins Hospital.

The Boulder County dentists were invited to share this meeting.

MARGARET L. JOHNSON, Secretary.

* * *

CROWLEY COUNTY

At the October 11 meeting of the Crowley County Medical Society held in Ordway, Drs. W M. Desmond and J. A. Hipp presented case reports, Dr. Desmond a case of Little's disease and Dr. Hipp a case of pleurisy with effusion. Dr. G. M. Baker discussed the older methods of treating diphtheria as compared with the present methods. An interesting discussion followed.

J. A. HIPP, Secretary.

* * *

DELTA COUNTY

Mesa and Montrose County doctors were guests of the Delta County Medical Society at a special meeting held in Delta, September 23. The meeting was preceded by a dinner at the Delta House. Dr. Frank B. Stephenson and Mr. Harvey T. Sethman were the principal speakers. Dr. Stephenson delivered an address on "Acute Intestinal Obstruction" and Mr. Sethman talked on "State Medical Economics."

LEE BAST, Secretary.

* * *

CLINICAL AND PATHOLOGICAL SOCIETY

A striking tribute was paid Dr. Robert Levy of Denver on the evening of October 11, when his fellow members of the Clinical and Pathological Society elected him president of that organization on its fortieth anniversary. Dr. Levy was the first president of the society and was re-elected on its thirtieth anniversary in 1922. At the banquet which followed the meeting of October 11, and for which Dr. F. W. Kenney was host, a "memory book" suitably engraved and containing friendly sentiments from each of the fifty members of the association was presented to Dr. Levy, with appropriate ceremonies, and an ad-

dress by Dr. James R. Arneill. Responses to toasts on the many phases of Dr. Levy's active professional life were made by Drs. J. N. Hall, Henry Sewall, Leonard Freeman, S. B. Childs, J. J. Waring, Frank Spencer, Gerald Webb, Casper Hegner, C. E. Cooper, H. G. Wetherill, and F. W. Kenney. Dr. J. W. Amesse acted as toastmaster.

* * *

EL PASO COUNTY

"A Further Study of Thyroid Problems" was the principal subject at the October 13 meeting of the El Paso County Medical Society. Dr. M. O. Shivers delivered the paper which was discussed by the members.

Doctors H. M. Ogilbee and W. W. Hills were elected to honorary membership in the El Paso County Medical Society at this meeting.

W. A. CAMPBELL, JR., Secretary.

* * *

LARIMER COUNTY

Dr. Frank B. Stephenson and Dr. W. R. Waggener of Denver were guest speakers at the regular meeting of the Larimer County Medical Society held October 15 at the College Cafeteria, Fort Collins. Dr. Stepenson addressed the society on "X-ray Interpretations" and Dr. Waggener gave a paper on "Industrial Medicine." Both papers were enjoyed by the members.

C. E. HONSTEIN, Secretary.

* * *

OTERO COUNTY

Denver members provided the program for the meeting of the Otero County Medical Society held October 13 at the Harvey Hotel in La Junta, The meeting was preceded by dinner.

Dr. John A. Schoonover gave a paper on "Mental Deficiency in Children" and Dr. W. W. Barber spoke on "Infant Feeding in Health and Disease."

C. E. MORSE, Secretary.

* * *

PUEBLO COUNTY

"Diseases of the Thyroid and Their Treatment" was the subject of an address by Dr. Paul M. Ireland at the October 18 meeting of the Pueblo County Medical Society. The meeting was held at the Hotel Congress.

L. L. WARD, Secretary.

* * *

WELD COUNTY

The regular monthly meeting of the Weld County Medical Society was held at the Greeley Hospital, September 5. An interesting talking movie on "Effect of Drugs on Heart and Lungs" was presented by the Petrolagar Company.

TRACY D. PEPPERS, Secretary.

* * *

SAN JUAN

The regular bi-monthly meeting of the San Juan Medical Society was held in Durango, September 24, preceded by a dinner at the Strater Hotel. Dr. Frank B. Stephenson, President, and Mr. Harvey T. Sethman, Executive Secretary of the State Society, provided the program with a discussion of a variety of subjects pertaining to Medical Society activities, medical economics, and legislation, and Dr. Stephensen showed slides and moving pictures of a number of cases of intestinal obstruction.

A special meeting was held October 10 at which Dr. O. S. Fowler of Denver was guest speaker. Dr. Fowler gave an illustrated paper on "The Relation of the Adrenals to Nephroptosis and Kidney Disease."

R. L. DOWNING, Secretary.

SAN LUIS VALLEY

The San Luis Valley Medical Society held a special dinner meeting September 25 at the Walsh Hotel, Alamosa, to entertain Dr. F. B. Stephenson and Mr. Harvey T. Sethman, state president and state secretary, respectively. Wives of the members were guests at the dinner. Dr. Stephenson gave an illustrated talk on intestinal obstruction and Mr. Sethman discussed medical defense and medical legislation at the meeting which followed the dinner.

SIDNEY ANDERSON, Secretary.

WOMAN'S AUXILIARY

GREETINGS FROM OUR PRESIDENT

As President of the Woman's Auxiliary to the Colorado State Medical Society I wish to convey to all county organizations my heartiest greetings.

In these days of rapidly changing events in the medical world it is very important that our Auxiliary should be outstanding in its performances and, in the present state of our economic affairs, it is more than ever the duty of every physician's family to take an active part in the health activities of their respective communities. Therefore, it is my earnest hope that we may be able to see, during the coming year, an Auxiliary for every county society in the state. I believe we have a real chance to make ourselves worthwhile adjuncts to our county medical societies.

At the present time there is much interest and enthusiasm being displayed among the various Auxiliaries. There is also considerable work of a constructive nature being undertaken. If this continues, we shall not only win recognition, but active support from the medical societies.

I invite your suggestions and criticims and ask that you use your influence in helping to promote this great work of building up an Auxiliary in every county in Colorado.

I also wish to urge upon you your very active support of the entire legislative program advanced by the Colorado State Medical Society.

MRS. B. FRANKLIN BLOTZ,
Rocky Ford.

Mrs. B. Franklin Blotz, State President, announces the appointment of the following chairmen of committees:

Organization: Mrs. John Andrews, Longmont.

State Editor and Publicity: Mrs. Douglas W. Macomber, Denver.

Education: Mrs. Valentine Fischer, Boulder.

Public Relations: Mrs. Albert Stickles, La Junta.

Hygeia: Mrs. Geo. H. Gillen, Denver.

Social: Mrs. C. S. Morrison, Colorado Springs.

Year Book: Mrs. Geo. W. Miel, Denver.

Philanthropic: Mrs. C. W. Maynard, Pueblo.

Benefit: Mrs. T. Mitchell Burns, Denver.

Legislative: Mrs. G. P. Lingenfelter, Denver.

These committee chairmen will be very glad to help any of the county auxiliaries who want information or advice in their respective work.

DR. FRANK SPEAKS TO THE DENVER AUXILIARY

The Woman's Auxiliary to the Denver County Medical Society held its first fall meeting on Monday, September 19, at the Nurses' Home at

the Denver General Hospital. Mrs. H. R. McKeen, president, presided.

Dr. Lorenz W. Frank, president of the Denver County Medical Society, was the speaker of the afternoon. He gave an interesting talk, discussing some of the problems which are mutual to the Medical Society and Auxiliary.

Dr. Frank first mentioned the objects and the justification for the existence of the Auxiliary. According to the resolution of the House of Delegates of the American Medical Association, the chief object and activity of the Auxiliary is to increase the circulation of Hygeia and the furtherance of medical knowledge among the laity. From the standpoint of the American Medical Association, Dr. Frank said this was all right, but that there are many other reasons, particularly locally, for the existence of our organization in helping the Medical Society.

Locally, one of the ways we can help is in the political question. In this there is a need for close cooperation and uniformity of program. Considering the question of cults, Dr. Frank said that every time the legislature convenes there is a fight over bills introduced by cultists, and consequently we must know the type of man to be elected. If we are to do anything against the cults except fight them in the legislature, we must teach the public that these elements are opposed to public health, or we must bend our efforts toward the establishment of the basic science law.

In speaking of economics, Dr. Frank said the meaning of medical economics itself is hard to define—that it is closely interwoven with the practice of medicine and the relation of the Auxiliary. Whenever we have a time of stress, one of the favorite ways to overcome the economic ills is to try to do away with the high cost of sickness. Everyone is willing to go on with the high cost of automobiles and other luxuries, but not with that of sickness. All sorts of schemes are designed for evasion of the latter, and all point toward some form of state medicine. Whether we want this or not depends upon ourselves. The Auxiliary can help politically to avoid this, and can yield a marked influence from the standpoint of the individual voters.

In speaking of our contemplation of the establishment of a Physician's Benevolent Fund, Dr. Frank said it was a worthy and important activity. The House of Delegates at Estes Park approved this plan.

Dr. Frank closed his talk by saying that the Medical Society's chief expectation of the Auxiliary is support individually and collectively in furthering public health education and protection.

Mrs. Harry Douglas gave some vocal solos, after which tea was served.

COLORADO NEWS NOTES

DENVER—Friends of Dr. and Mrs. S. B. Childs will be pleased to learn that their son, Beresford, who was seriously injured at Stanford, Conn., last May, is making a very satisfactory convalescence.

DENVER—Dr. M. D. Currigan was selected at the Primary, Sept. 13, for the important office of Regent of the State University, on the Democratic ticket.

DENVER—Dr. E. C. Hill has returned to Denver from a trip to the Scandinavian countries.

DENVER—One hundred and fifty old friends of Dr. and Mrs. William C. Bane met at the home of their son, Dr. William M. Bane, on the evening of Wednesday, October 19, to felicitate them on the fiftieth anniversary of their wedding.

DENVER—Dr. H. G. Wetherill of Monterey, California, has returned home after a happy visit with his friends in Denver.

DENVER—Dr. Hubert Work spent the month of October in Washington and other eastern cities.

DENVER—Dr. Robert K. Dixon and Dr. Lewis S. Faust, for the past few years identified with the Mayo Clinic, have established themselves in practice in Denver.

DENVER—Friends of Dr. Hugh Taylor will be pleased to learn of his complete recovery following a major operation at Mercy Hospital.

DENVER—Dr. Luman E. Daniels of Rochester, Minn., has moved to Denver and has opened offices in the Republic Building.

DENVER—Dr. W. Wiley Jones and Dr. Frank P. Gengenbach of Denver, Dr. E. L. Timmons of Colorado Springs and Dr. J. H. Woodbridge of Pueblo attended the annual meeting of the Central States Pediatric Society at Kansas City, early in October.

DENVER—Drs. T. E. Beyer and Robert Shea of Denver were admitted to Fellowship in the American College of Surgeons at the annual meeting held in St. Louis, October 17 to 21. The following Denver men attended the meeting: Drs. C. F. Hegner, James Shields, Louis V. Sams, Kemp G. Cooper, J. E. A. Connell, James E. Hutchison, Duval Prey and W. W. King.

DENVER—Dr. C. F. Kemper attended the Annual Reunion of the Resident and Ex-Resident Physicians of the Mayo Clinic held in Rochester.

FORT LYON—Dr. R. M. Fulwider has returned from an extended eastern trip.

PUEBLO—Dr. H. T. Low will preside at post graduate lectures to be held during the annual conference of the Oklahoma City Clinical Society in Oklahoma City, October 31 to November 3.

PUEBLO—Dr. J. M. Woodbridge attended the tenth annual conference of the Kansas City Southwest Clinical Society.

PUEBLO—Dr. George A. Unfug has returned to Pueblo after spending the past nine months in Denver doing post-graduate work in x-ray. He is opening offices in the Colorado Building.

PUEBLO—Dr. George E. Rice attended the Annual Reunion of the Resident and Ex-Resident Physicians of the Mayo Clinic.

RICO—Dr. and Mrs. R. T. Speck have moved from Rico to McPhee.

Colorado State Medical Society
Officers, 1932-1933

President: Frank B. Stephenson, Denver.

President-elect: Gerald B. Webb, Colorado Springs.

Vice Presidents: First, Walter W. King, Denver; Second, Lawrence L. Hick, Delta; Third, B. Franklin Blotz, Rocky Ford; Fourth, William P. Gasser, Loveland.

Constitutional Secretary: Lorenz W. Frank, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 656-658 Metropolitan Bldg., Denver. Telephone KEystone 0870.

Delegates to American Medical Association: Senior, Crum Epler, Pueblo; Alternate, J. N. Hall, Denver; Junior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver.

Councillors:		*Term Expires*
District No. 1	Ella A. Mead, Greeley	1935
District No. 2	G. P. Lingenfelter, Denver	1934
District No. 3	George D. Andrews, Walsenburg (Chairman)	1933
District No. 4	W. W. Crook, Glenwood Springs	1936
District No. 5	A. L. Burnett, Durango	1937

Standing Committees, 1932-1933

Credentials: Lorenz W. Frank, Denver, Chairman; W. A. Campbell, Colorado Springs; Harold T. Low, Pueblo.

Scientific Work: G. Burton Gilbert, Colorado Springs, Chairman; C. S. Bluemel, Denver; James J. Waring, Denver.

Arrangements: John B. Crouch, Colorado Springs, Chairman; T. R. Knowles, Colorado Springs; John B. Hartwell, Colorado Springs.

Public Policy: Walter W. King, Denver, Chairman; H. R. McKeen, Denver, Vice Chairman; Edward Delehanty, Denver; Gerrit Heusinkveld, Denver; A. L. Beaghler, Denver; W. W. Harmer, Greeley; O. D. Groshart, La Junta; L. L. Ward, Pueblo; A. C. Holand, Colorado Springs; F. B. Stephenson, Denver, ex-officio; L. W. Frank, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: C. F. Kemper, Denver, Chairman; C. S. Bluemel, Denver; William H. Crisp, Denver.

Medical Defense: W. W. Wasson, Denver, Chairman; C. F. Hegner, Denver; T. D. Cunningham, Denver.

Medical Education and Hospitals: C. N. Meader, Denver, Chairman; K. D. A. Allen, Denver; H. A. Black, Pueblo.

Library and Medical Literature: E. D. Downing, Woodmen, Chairman; Carbon Gillaspie, Boulder; F. W. Kenney, Denver.

Co-operation With Allied Professions: Harry S. Finney, Denver, Chairman; George R. Warner, Denver; John Andrew, Longmont.

Medical Economics: C. E. Cooper, Denver, Chairman; B. B. Blotz, Rocky Ford; Philip Hillkowitz, Denver.

Necrology: G. M. Blickensderfer, Denver, Chairman; John F. McConnell, Colorado Springs; Lee Bast, Delta.

Special Committees, 1932-1933

Postgraduate Clinics: Maurice H. Rees, Denver, Chairman; O. M. Gilbert, Boulder; C. E. Harris, Woodmen; Nolie Mumey, Denver; G. E. Cheley, Denver.

Workmen's Compensation Affairs: A. S. Cecchini, Denver, Chairman; L. G. Crosby, Denver; W. R. Waggener, Denver; J. D. Carey, Fort Collins; Lanning E. Likes, Lamar.

Veterans' Legislation: J. W. Amesse, Denver, Chairman; E. B. Liddle, Colorado Springs; Crum Epler, Pueblo; L. H. Winemiller, Denver; Louis V. Sams, Denver.

Advisory to the School of Medicine: John S. Bouslog, Denver, Chairman; N. A. Madler, Greeley; C. O. Giese, Colorado Springs; C. E. Sidwell, Longmont; T. D. Cunningham, Denver.

State Registration Fee: R. W. Arndt, Denver, Chairman; Frank E. Rogers, Denver; T. E. Beyer, Denver.

Constituent Societies
Meeting Dates; Secretaries

Arapahoe County—Last Monday of each month; secretary, W. C. Crysler, Littleton.

Boulder County—Second Thursday; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, G. W. Larimer, Salida.

Crowley County—Second Tuesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, H. I. Barnard, Denver.

El Paso County—Second Wednesday of each month; secretary, W. A. Campbell, Jr., Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs, Colo.

Huerfano County—Third Thursday of each month; secretary, J. M. Lamme, Walsenburg, Colo.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, Walter C. Keller, Genoa.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, C. E. Honstein, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—First Tuesday of each month; secretary, H. M. Tupper, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each month; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Thursday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, R. J. Rummell, Lamar, Colo.

Pueblo County—First and Third Tuesday of each month; secretary, L. L. Ward, Pueblo.

San Juan—Second Saturday, January and alternate months; secretary, R. L. Downing, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Weld County—First Monday of each month; secretary, Tracy D. Peppers, Greeley, Colo.

WYOMING SECTION

President, F. L. Beck, Cheyenne — Vice President, J. L. Wicks, Evanston
President-elect, H. L. Harvey, Casper
Secretary, Earl Whedon, Sheridan — Treasurer, Evald Olson, Meeteetse
Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne
Councillors: G. P. Johnston, Cheyenne — J. H. Goodnough, Rock Springs — F. C. Shafer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan — R. H. Sanders, Rock Springs — E. L. Jewell, Shoshoni

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Our Very Modest President

LET it be known that this Society has one of the most modest Presidents in the United States. He is so modest that it is with regret that we are forced to go to press without being able to print his picture and a short sketch of the life of the man all Wyoming doctors love and admire.

Dr. Frederick L. Beck of Cheyenne is the head of the medical profession of Wyoming. However, let no man think he is not hard at work for medical welfare of the people of Wyoming. We know he is doing things, and we hope next month to present a life story and photograph of the man we are proud to call our President.

Our Ladies

AN opportunity for service by members of the Woman's Auxiliary of the Wyoming State Medical Society awaits the action of the President of that Society. That the officers and members of our Ladies' Society are as bright and interested in the work of their husbands as those of any other state society cannot be denied. Our wives are outstanding champions of our daily lives even though they may not have the opportunity to meet together as often as the men of the Wyoming State Medical Society. They may not drink as much pink tea as some of their eastern sisters, but they do believe in their husbands and their work for humanity.

Presbyopia

MEN and women grow old, and with the passing of years certain changes occur in our eyes as well as in all other parts of our bodies. These changes produce difficulties which we try by artifical means to overcome.

In normal people somewhere between the ages of forty to fifty years the crystalline lens undergoes an increasing rigidity. This in turn diminishes the focusing power of the eyes so that reading at the normal distance becomes difficult. It is then that we are compelled to hold the reading matter farther away in order to see fine print. Sometimes our arms are not long enough to hold it far enough away to be able to read. Of course the previous condition of the eyes has a great deal to do with the exact age in any given case when these changes take place, and so a range of ten to fifteen years may elapse in some cases before the presbyopia is established.

Presbyopia begins before all close work becomes difficult. In some degree it is a gradual development and it is only when these symptoms appear—indistinctness of near objects, tiring of the eyes on attempting to read, together with other evidences of eyestrain—that our attention is called to the immediate need of glasses.

Some people very foolishly refuse to attend their eyes believing that if they go without glasses when these symptoms occur they will put off the evil day. That is one of the great mistakes in life. If the proper glasses are worn early enough, there still remain some elasticity of the lenses so that print does

not have to be read at just one certain distance, whereas if no glasses are used until all adjustment is lost, then stronger glasses must be prescribed which will have a very limited area in which close work can be comfortably done.

Most interesting is the record of a prominent lumber dealer of this city. In 1909 he was fifty-two years old. In all respects his eyes were perfect except for a normal amount of presbyopia. Reading glasses were fitted and worn for the next twenty-three years without a change during that time. On January 12, 1931, he was re-tested and no change was needed in his glasses. In other words, for twenty-three years his eyes had not altered. This is a remarkable record as we do expect changes, especially during the first ten to fifteen years following the average ages of forty-five to fifty in men and forty to fifty in women.

Too little attention is given to normal eyes at these ages in life in order that the later years may be most enjoyed. The best ophthalmologist should be secured, and no medical man of average intelligence should patronize department stores, opticians, or other glass fitters, but they should seek and follow the advice of the physician who makes a specialty of ophthalmology, as there is often some constitutional disease having its effect on the eyes as well as other parts of the body. Physicians and their families above all other people should go to an ophthalmologist for eye correction.

❧ ❧ ❧

A Correction

IN an editorial entitled "A New Symptom of Diaphragmatic Hernia of the Stomach" published in the October number of Colorado Medicine, Ye Editor made the error of using the word "anemia" in place of "ischemia." We acknowledge the mistake and are not trying to pass the buck to the printer or stenographer. The sentence should read—"As a possible explanation we suggest that there may develop an ischemia in the brain caused by the pressure of the stomach upon the heart."

Obituary

Dr. William A. Wyman

The thread has parted and he is no longer with us. The curtains that separate the living from those who have passed on have opened and a beautiful future awaits a kindly soul.

In every community there have been tender memories of the old time family doctor who by his loving care in time of sickness was more like a god than a man. Such was the life of Dr. William A. Wyman of Cheyenne, Wyo.

Dr. Wyman was born in Akron, New Hampshire, October 30, 1854. He died at the home of his daughter, Mrs. R. G. Dunlap of Cheyenne, on Thursday, October 13, 1932. He graduated from the Eclectic Medical College at Cincinnati, Ohio, in 1878, and was married in 1879 to Dora Ellis of Nebraska City, who passed away about seven years ago. He came to Cheyenne in 1880 because of ill health caused by tuberculosis; yet the climate of Wyoming and his outdoor busy life restored his health and for fifty-two years he spent a most useful life in the west. He retired from active practice in 1923. For several years he had been an invalid and yet was the same kindly gentleman who was loved and honored by all who knew him.

Life in the early days was different than it is today. Lacking all the modern conveniences he never refused the cry of distress and even though the call came from miles away, in any kind of weather he answered the call and gave his sympathetic services. Nor did the ability of the patient to pay ever make any difference in the service rendered.

He was a gentleman of the old school of Medicine whose only motto was "duty." Honored by his fellow physicians in many ways, he was for thirty years the trusted Treasurer of the Laramie County Medical Society. He was one of the few men to be elected an Honorary Member of the Wyoming State Medical Society for his outstanding life as a great family doctor and loyal member of the medical profession. He was the first president of St. John's Hospital, which position he held for twenty years. He was one of the active workers who organized the beautiful Memorial Hospital on the site of old St. Johns'. Civic activities as well as medical claimed his services. He was county superintendent of schools in the early eighties when his county covered about one-fifth of Wyoming. He was elected to leadership in the Masonic Orders, Young Mens' Literary Club, Odd Fellows, Rebekahs, and Congregational church of Cheyenne. He served many years as superintendent of their Sunday school. He was Grand Master of the I. O. O. F. and Knight Commander of the Court of Honor in the Masonic Order.

Such is but a brief glimpse of some of the activities of this loving man. He has passed on and those who knew him will always cherish the memory of a loving, sympathetic family doctor who not only relieved the sufferers with his medical skill but encouraged their broken spirits by his loving personality. E. W.

INFANT AND CHILD CARE AND FEEDING*

NEIL CHARLES GEIS, M.D.
CASPER

Nature is a succession of wonders. The seasons come and go; a glorious sun rises; the white snow falls; a beautiful flower blossoms; a golden-throated bird sings. Miracles all, but none so beautiful or so wonderful as that miracle of human life—"the tiny baby who comes out of everywhere into the here" to bring you joy. His coming fills your heart with pride, gladness, and great hopes for his future health and happiness.

Early Care of the Mother

Just after the baby is born, rest and quiet for the mother are very important. She should have very few visitors; two a day are enough. Anyone with a cold or other illness should not be admitted to either mother or baby. Mother should remain in bed, postpartum, for at least two weeks. Her diet should at first be liquid, then semi-solid, and followed by a regular diet suitable for a nursing mother. Mothers who are healthy have right habits, eat the right foods, and keep in a happy frame of mind. Fresh air, sunshine, and exercise—all regulated—should be partaken of freely. Advice may be suggested upon the following: Rest and sleep; habits of bathing and moving of bowel and kidneys; correct clothing; contentment; pleasure.

Breast Milk for the Baby

Breast fed babies are the strongest and healthiest—usually. Breast milk is alkaline when it leaves the breast, while cow's milk is acid by the time it is given to the baby; also breast milk is practically free from germs when it leaves the breast. Nursing from the breast is the most convenient method. If every mother knew the dangers to which the baby is exposed, especially during the first few months of life, and how much breast feeding protects him from these dangers, nearly all babies would be breast fed. Out of every hundred babies that die during the first year of life, about eighty are bottle fed. Breast fed babies hardly ever have bowel trouble, while diarrhea is one of the common sicknesses of the bottle fed babies.

Some boiled water, cooled until luke warm, should be offered to the baby from a bottle within two or three hours after birth, then every four hours until after the mother's breast milk begins to flow, and thereafter once between feedings, if the baby is awake. As soon as the mother is rested, which is usually from six to eight hours after the birth, the baby should be put to the breast. It should be nursed from ten to fifteen minutes at each feeding. As a rule the baby gets about three-fourths of the milk from a well filled breast within the first five minutes, but the baby must be kept at the breast long enough to empty it completely so that it does not dry up. During the nursing, the mother should lie down in a comfortable position, slightly on one side and hold the baby in the curve of her arm in such a way that it can easily suck from her nipple without straining. At first the baby may be asleep at nursing time, and if so, should be awakened gently. Soon it will form the habit of waking at the regular nursing times, and during the nursing it should not be allowed to go to sleep. Do not allow the baby to nurse after the breast is empty. It is better to nurse only one breast at a feeding, the other at the next feeding. However, if the baby does not get enough milk by the empting of one breast, he should nurse both breasts at each nursing.

The baby should be fed at regular hours. Usually the average baby does well if fed five times a day, at intervals of four hours, i.e., 6, 10, 2, 6, and 10. Some babies need nursing every three hours, and the doctor in charge should be consulted about this factor. During the nursing period, the mother and baby should be by themselves in a quiet room. Other phases of infant feeding on the breast should be mentioned briefly for consideration—how to keep up the supply of milk when the baby cannot empty the breast, increasing the supply or amount of milk from

*Read before the Wyoming White House Conference on Child Health and Protection, May 5, 1932.

the breast, getting ready to empty the breast, bringing back the milk to the dried up breast, care of the breast, care of the nipples, cracked or sore nipples, and covering of the nipples.

Cow's Milk for the Baby

Milk in some form is necessary for the growth and development of every baby. When the baby cannot get breast milk, or enough of breast milk, cow's milk in some form is the best food for nearly all babies. If the mother does not think she has sufficient food for her baby, she should consult her doctor before starting to give bottle feedings. Cow's milk should be modified for the young baby, and the doctor should advise the kind of milk to be used, that is, pasteurized, certified, or raw milk, depending upon the community in which those interested live, and upon the distance milk must be transported from producer to consumer. The feeding mixture must be figured on the basis of normal weight and age. Every baby must make a steady gain in weight each month. Usually the more a baby weighs at birth, the faster his gain after birth. The amount of feeding mixture given daily to the normal baby should be from 2½ to 3 ounces of the feeding mixture for each pound that he weighs, up to the time he begins his sixth month. During the first two or three months, he gets 3 ounces per pound, and the amount is gradually reduced to 2½ ounces per pound. For example, if the baby is normal, weighing 8 pounds and is one month old, he will get 8 times 3 or 24 ounces of the feeding mixture in the 24 hours. At three months, he will get 10 times 2¾ or 2½ ounces, or 28 ounces in the 24 hours. When he is 4 months old, 11¼ pounds weight, he will get 11½ times 2½ or 29 ounces. When the baby begins his sixth month, he will get 26 ounces of the mixture in 24 hours . The amount and kind of sugar to be used in the mixture must be determined. Cane sugar or Karo syrup is generally given in the feeding mixture. Water, boiled, is used in making the milk dilutions to the proper percentage mixture. When to increase the feedings must be determined by the age plus the increase in weight, but particularly by the age. One must be observant of the over-fed baby as well as the under-fed baby. Time allotted does not permit me to take up the various phases and symptoms of these two important conditions. Extreme care must be paid to the care of the utensils, such as bottles, nipples, measures, brushes, and strainers. On the manner in which infant feedings are prepared depends, equally with the proper feeding mixture, the success or failure of the case at hand.

Weaning the Baby

This means to stop giving him either breast or bottle feedings and substituting or inaugerating full feedings of milk from a cup or glass, together with fruits and vegetables properly prepared. Weaning the baby before the tenth month may be necessary because of some acute or chronic infection from which the mother is suffering, or because she may be in a generally "run-down" condition. The best time to begin weaning the baby is the sixth month, by giving him a cereal feeding in place of part of his 10 a. m. feeding of milk. In most cases, at the beginning of the seventh month, a vegetable feeding should be given in place of part of the 2 o'clock afternoon breast or bottle feeding. During this month, 4 ounces of cow's milk should be given or offered after the vegetable feeding. This makes complete weaning later on much easier. The milk should not be given until after the baby has eaten all his vegetables. Complete weaning should be accomplished before the end of the tenth month, unless some contraindications should be present.

Menstruation and Nursing

This function of the mother apparently has no ill effect upon the breast milk, and therefore, breast feeding should never be stopped for this reason. The amount of breast milk may be less for a day or so during this time, which in fact may make the baby restless—the only symptom, and is attributed to the menstrual period. The woman who becomes pregnant during her nursing period should wean her baby at once from the breast.

Later Feeding

Fruit juices are very important foods. Cereal feedings, vegetable feedings, selec-

tion, preparation, and periods of giving to the infant all play equally important parts. Life-giving rays of sunshine, cod liver oil and viosterol, kinds and how to give, are important. Meat, apple sauce, baked custard, tapioca pudding, egg yolk, prunes and prune juice, toast, zwiebach, are progressively added.

Habits

Training the child to regulate the bladder and bowel are vital functions. The baby's bath, the room in which it is given, room temperature, the hands of the mother or nurse, temperature of bath water, length of bath and the avoiding of accidents during bathing, must be intelligently supervised. The care of the nose, eyes, navel, genitalia and the care of the infant's nails; the child's clothing, the bedroom furnishings, ventilation, exercise, and development; the mental health; and the teaching to do things for himself—all these conditions must constantly be observed for "off" periods. Then comes the very important phases of a child's life: Responsibility, obedience, respect, regularity, and routine.

The subject is too extensive to permit me to detail more extensively in limited time. Therefore I bring to a close this very important phase which in a measure will assist in handling the health of our future citizens.

The Preschool Child and the Summer Round-Up

Preschool children, little ones between the ages of two and five, are fast becoming the center of attention as health and educational organizations everywhere are stressing the importance of these years.

Denver is among the leaders in making an effort to protect the physical, mental, and emotional health of its preschool children. A formal health education demonstration was begun five years ago by the Denver County Congress of Parents and Teachers, assisted by the Denver Tuberculosis Society. This was started when a survey of children entering kindergarten showed that 87 per cent of them had physical defects.

Classes are held for parents and children. These classes occur twice a month from September to June in the various public school buildings. The preschool child is met at the door by a trained nursery school teacher who examines his throat to see that he has no signs of cold and questions the mother about his health. This precaution helps protect the children against communicable diseases.

If the child is eligible, he is allowed to enter where he finds toys and equipment which are suited to the interests of the preschool child. A delightful hour is spent exploring and using material which challenges even the two year old's creative ability. Then comes a short rest period, a necessary relaxation during work and play and after that there are stories and games and rhythmics.

Every year that the child is enrolled in Preschool he is given a thorough dental and physical examination by a competent doctor, dentist, and trained nurse. This makes the summer round-up work in Denver more thorough than is usual inasmuch as the child is offered three physical examinations before he enters school in place of just one before he enters. Each examination is closely followed up to insure correction of any defect found during a previous examination.

The mother attends her class where she discusses problems of child care and training with other mothers. On definite days she may observe her small child at work and play with other children.

The objectives of the preschool work and summer round-up are to keep the well child well, early correction of physical defects, see that the child is properly immunized against smallpox and diphtheria, establish happy relationships with doctor and dentist and to see that the child embarks on his school career in the best possible physical condition.

Sir James Barrie says that the scientific man is the only one who today has really something to say, but he is the only man who does not know how to say it.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

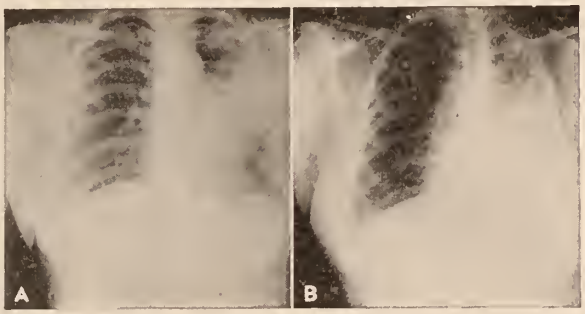
ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V | November, 1932 | Number 11

WHILE tuberculosis has long been regarded as essentially a medical problem, surgery has made an outstanding place for itself in the treatment of this disease. Artificial pneumothorax is widening in use, as its indications become more definite. Phrenico-exeresis and the cauterization of pleural adhesions to facilitate pneumothorax are established procedures. Thoracoplasty, or the extrapleural removal of portions of the ribs, still has its risks but is of undisputed value in well selected cases. Dunham and Asbury, in the Journal of the American Medical Association, July 30, 1932, discuss some general and economic considerations of thoracoplasty. Excerpts of this article of interest to the general practicioner follow.

THORACOPLASTY IN PULMONARY TUBERCULOSIS

Most of the literature on surgery in pulmonary tuberculosis has been written either by surgeons or by internists without mutual collaboration. Too frequently the surgeon does not have the "feel" of the case which the internist develops from his longer contact with the patient. The internist, on the other hand, may beguile himself into over-conservative methods. The cooperative effort of internist and surgeon, based on their combined medical and surgical experience, is probably the best arrangement. It is regrettable that for such cooperative work facilities in personnel and equipment are lacking in most sanatoria as well as general hospitals.



(A) Far advanced tuberculosis of the left lung. A persistently positive sputum was noted for three years. Phrenicectomy was insufficient, and pneumothorax impossible. There was a good cardiorespiratory capacity. (B) Appearance after thoracoplasty; sputum has since been negative continuously. Complete recovery occurred.

Brown reported that, after nine years, eight of thirty-six patients on whom thoracoplasty had been performed were dead, while the remainder were either working or clinically well. These patients averaged less than a year of treatment after operation. Nine patients were followed who had been advised, but who had refused, operation. Six were dead, two were still under care, and one had recovered after five years of institutional treatment. Those who died averaged five years of care in a public sanatorium after the operation was refused. These figures are probably applicable to all institutions.

Economic Phases

Certain tuberculosis patients live in a bedridden condition for years. They are a potential source of infection to all who come in contact with them. It is estimated that this group, though comprising a small percentage of the total number of patients, accounts for from 25 to 50% of the patient-days of most sanatoria. A great saving would result were the sanatoria to be relieved of these chronic cases. Patients on whom a thoracoplasty should be done are mostly in this group. In the Hamilton County (Ohio) Tuberculosis Sanatorium patients are constantly examined by the internist and the attending chest surgeon, and those for whom surgery is indicated are removed to the Cincinnati General Hospital and returned after operation. The authors suggest a modification of this plan for all counties or sanatoria.

Selection of Patients

Why and when are surgical measures valuable in pulmonary tuberculosis? Spontaneous cures of the disease have been effected for centuries. Indeed, the natural tendency of tuberculous processes is toward healing. Rest in bed to reduce the depth and number of respirations and the circulatory activity, and to build up the general resistance is still our greatest aid in any case. Rest in bed constitutes the accepted treatment in most cases, either because the lesions are minimal or because both lungs are involved, contraindicating collapse therapy. If only one lung is actively involved, some form of collapse therapy should be considered, but it cannot be used in all cases.

The simplest form of collapse therapy is artificial pneumothorax. Pleural adhesions may prevent the introduction of air; or this method may have to be abandoned when adhesions cannot be further stretched or when new adhesions form. The adhesions attached to the chest wall hold open cavities, which jeopardize the uninvolved lung of the patient and the safety of every one in contact with him. In certain cases, adhesions may be divided by the Jacobæus or open method, so that pneumothorax can be continued. If the adhesions are widespread and cannot be cut, or if a pure tuberculous empyema occurs, thoracoplasty must be considered.

Why do we do thoracoplasty? Primarily to do away with positive sputum. The field for thoracoplasty is limited to cases of involvement of one lung which show evidence of cicatrization, but in which the cavities are not closing and persistently positive sputum is found. Toxicity, as evidenced by fever and a rapid pulse rate, should be absent. The general condition of the patient must be favorable, although arrested lesions in the opposite lung, as well as secondary lesions, are compatible with collapse therapy.

The way to determine whether the patient can stand a major operation is to observe his effort syndrome. Although contraindicated in the average case, for purposes of such observations, the patient is got out of bed daily, the time and amount of exercise is gradually increased, and a record is kept of the rise in pulse and respiratory rate and the amount of dyspnea. The length of time required for the return to normal is noted. Other methods of investigating the heart should not be neglected. Cyanosis is a positive contraindication to surgery. Thoracoplasty will affect the bedridden patient as would a 50 yard dash.

Comments on Technic

Phrenico-exeresis is done either in conjunction with thoracoplasty or as an independent procedure. If the patient has a one-sided lesion and pleural adhesions which cannot be cut, and if he is too toxic for more radical procedures, phrenico-exeresis is done. Owing to the 15 to 25 per cent compression of the lung from raising the diaphragm and the lessened excursion of the lung, further surgery may not be needed if the sputum becomes negative. As a rule, some improvement occurs. If there is doubt as to the condition of the good lung, phrenico-exeresis serves as a test and a preparation for thoracoplasty, and can also be used after thoracoplasty when further collapse is needed to obtain negative sputum.

The preoperative preparation, the surgical technic and the post-operative care are lucidly described in the original article. Portions of at least ten ribs are removed subperiosteally as close to the transverse processes as possible in two stages. At the first stage the fifth to the eleventh ribs are removed. The second stage must not be unduly delayed since new bone forms quickly from the periosteum, but infection, such as acne or stitch abscesses, and wound drainage must be cleaned up before it is attempted. All possible speed and skill are desirable but gentle handling of the tissues is essential.

For two years the authors have been using acacia solution intravenously to combat the severe post-operative shock. This has the advantage of safety and convenience for it may be used on a moment's notice through a very small needle. The cost is trifling. An ingenious but simple "infusion radiator" for the purpose has been devised by a sister of the Good Samaritan Hospital.

"The only criterion of a successful thoracoplasty is a living patient with continuously negative sputum."

In one series of patients 35% had continuously negative sputum beginning two weeks after the operation and all but two of the remainder had consistently negative sputum after a period from two to nine months. In another series 40% showed negative sputum at once after operation and 40% negative sputum after a period averaging seven months. All patients who had negative sputum after operation recovered, while those who continued to have positive sputum either remained sick or died.

Thoracoplasty in Pulmonary Tuberculosis, Kennon Dunham and Eslie Asbury.—Jour. A. M. A. —July 30, 1932.

The First Sign of Human Intelligence

Copyright 1932 New York Tribune Inc.



The Editor of the New York Herald Tribune has kindly given Colorado Medicine permission to reproduce the above cartoon, which appeared in that paper's issue of July 22, 1932.

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, First Vice President, Beth-El Hospital, Colorado Springs
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver
R. J. BROWN, Treasurer, Boulder-Colorado Sanatorium, Boulder
WILLIAM McNARY, Exec. Secy. Univ. of Colo. School of Med. & Hosp., Denver

TRUSTEES

G. M. HANNER, Beth-El Hospital, Colorado Springs, Colorado
B. B. JAFFA, M.D., Denver General Hospital, Denver, Colorado
G. WALTER HOLDEN, M.D., Agnes Memorial Sanitarium, Denver, Colorado
J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
MAURICE H. REES, M.D., Univ. of Colo. School of Medicine and Hospitals, Denver

COMING MEETINGS:

Colorado Hospital Association Annual Meeting Thursday and Friday, November 10 and 11, 1932, Antlers Hotel, Colorado Springs, Colorado

Change in Time of Meeting

DUE to the fact that the national election will take place on the date originally scheduled for the Annual Meeting of the Colorado Hospital Association to open, the trustees have changed the dates of the meeting to November 10 and 11. The first session will open on the morning of the tenth, at 9:30 o'clock.

The Program Committee is arranging a different type of program this year from those of the past. There will be more round table discussions and less of the formal presentation of papers. This will give every member an opportunity to have the problems discussed which are perplexing him. It is hoped that every member will take advantage of this, and take part in all discussions.

The banquet will be held Thursday evenning Nov. 10, at the Atnlers Hotel.

The Antlers Hotel has granted special rates to the members of the Colorado Hospital Association for the convention. Come prepared to stay over Thursday night so that you can attend both days' meetings, and enjoy a brief rest from Old Man Depression.

The business session and election of officers will be on Friday morning before the program.

Hotel Accommodations

The Antlers Hotel has granted special rates to members of the Colorado Hospital Association for the convention there: For single room with bath $2.50 per day, one person; for double room with bath, two persons, $2.00 per person per day. These rates are most liberal considering the Antlers' accommodations. It will be worthwhile for all members of the Colorado Hospital Association to take advantage of these rates, and combine pleasure with business during their stay in Colorado Springs.

The Annual Banquet

The annual banquet of the Association will be held in the Mexican Room of the Antlers Hotel. Tickets for the banquet will cost $1.00 each, a very reasonable charge. Not only the hospital superintendents but the heads of departments should be present. We want to make the banquet this year the best we have ever had. The banquet will be strictly informal.

The Program Committee has felt the need of a place on the convention program for the discussion of problems related to the small hospitals. The chairmen of the various meetings have been asked, therefore, to be prepared to discuss problems which the administrators of the smaller institutions who are attending the convention may bring up for the consideration of the group.

At its meeting of October 8, the Board of Directors of the American Society for the Control of Cancer took the following action: "It was voted that the Bulletin of the Society be made its official organ and that the present relationship between the Society and the American Journal of Cancer be discontinued."

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721

SAINT LUKE'S HOSPITAL

Under the Supervision of the Protestant Episcopal Church

MEDICAL, SURGICAL, OBSTETRICAL ORTHOPEDIC and PEDIATRIC SERVICES

225 Beds—32 Bassinets

Fully Equipped for Scientific Diagnosis and Treatment
Roentgenologist and Pathologist Constantly Available for Consultation

Established 1881 Pearl St. at Nineteenth
Denver

THE ROBINSON CLINIC

The private hospital for the care of the mental patient offers greater service than any other medical agency, for a similar cost. The fee for hospitalization covers not only board and room, but also medical attention and, in most cases, treatment as well. Expensive procedures may necessitate a slight additional expense, but this is rare.

A patient admitted to the Robinson Clinic, in addition to hospitalization, receives a complete general neurological and psychiatric examination, laboratory work—including Wassermann, urine analysis and spinal puncture, when indicated. Then, after conference, treatment is outlined; a report is given to the family and interested physicians and careful observation is continued, so that new developments may be forestalled.

We believe this method of approach gives results proportionally superior to those obtained in the average chronic conditions affecting other parts of the human body. It is surprising the high percentage of mental patients, long considered incurable, that respond to modern scientific therapeutic measures.



Airplane View
Courtesy Curtiss-Wright
Flying Service

Nervous and Mental Diseases
G. Wilse Robinson, Jr., M.D.
Assoc. Medical Director

G. Wilse Robinson, M.D.
Medical Director
1432 Professional Bldg.
8100 Independence Road
Kansas City, Mo.

Drug and Alcohol Addiction
Paul A. Johnson, M.D.
Internist

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING



WOODCROFT HOSPITAL—PUEBLO, COLORADO

Woodcroft Hospital was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent

H. A. LaMOURE, M.D., Medical Director **F. M. HELLER, M.D., Neurologist and Internist**

P. A. DRAPER, M.D., Resident Physician





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

SAINT FRANCIS SANATORIUM

An Institution for Tuberculous Patients

325 King Street, Denver, Colorado

Sisters of Saint Francis of Rochester, Minnesota

CAMP SURGICAL AND SEMI-SURGICAL SUPPORTS

Maternity Post Operative

Convalescing and Ptosis Supports

Abdominal Belts

Sacro-Iliac Binders, Orthopedic Back Splints

Mrs. J. M. Blinn Pfister, *Nurse*

SURGICAL CORSETIERE

Phone Main 7530

Hours, 7 a. m. to 1 p. m.

1515 Glenarm St. Denver, Colo.

W.T. ROCHE

Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 YOrk 0901

18th at Gilpin

THE BOULDER-COLORADO SANITARIUM



TO THE MEDICAL PROFESSION—It is the purpose of the Boulder-Colorado Sanitarium to co-operate fully with physicians in the care and treatment of their patients. Boulder is an ideal place for that patient who has been brought to the point of convalescence. Thoroughly equipped in Surgical, Hydrotherapy, Physiotherapy, and X-ray Departments, the institution stands ready to serve. Graduate nurses and dietitian—Battle Creek methods—excellent cuisine—individual service.

For reservations address:

BOULDER-COLORADO SANITARIUM

Telephone Boulder 1800 Boulder, Colo.

HAGBERG'S
Convalescent Home

Located in the residential section of the city, adjacent to Cheesman Park. Special attention to diets—tray service—nurses' care.

Reasonaable Rates

1212 Vine Street Denver, Colorado

SPECIAL PRINTING For PHYSICIANS

8½x5½ letterheads, statements and envelopes, professional cards and prescription blanks, 1,000 $2.

5,000 of either, $7

Perfect job on high grade bond paper

Address

David Nichols & Company

KINGSTON, GEORGIA

ANN ROWLAND HOME

A QUIET, centrally located private home where elderly people are welcome. Sensible meals, appetizingly served. Practical nurse renders every assistance. Not an institution—not a sanitarium—just a home with home comforts.

1579 EMERSON TAbor 0027

For Old Folks

Mrs. Worrell's Home

Where the rate is low enough to be within the means of the most economical.

95 BANNOCK ST. DENVER, COLO.



The MATCHETT

1101 GAYLORD ST. YOrk 5444

A refined, exclusive home for old people, convalescents and mental cases. Competent nurses day and night. Beautiful rooms, well ventilated and comfortable. Reasonable rates in accordance with service and care.

NOT AN INSTITUTION MRS. CAROLINE M. MATCHETT

Established Over 30 Years Formerly Mrs. Caroline Gregerson

MENTION COLORADO MEDICINE



A QUIET, restful nook for elderly ladies. Modern conveniences. Artesian water. Fine shade and shrubbery. Day and night nurses. Mild mental cases invited. No tuberculars. Rates very reasonable.

THE McCLELLAND HOME

920 Griffith Lane, Arvada, Colo.

Phone Arvada 533



INVALIDS
ELDERLY PEOPLE

Desirable Environment

REAL HOME CARE

GRAY and PALMER

147 W. Irvington SPruce 5758

COLORADO HOSPITAL ASSOCIATION PROGRAM

The following is a skeleton of the program of the meeting to be held in Colorado Springs on November 10 and 11. Due to the fact that some of the persons invited to take part on the program have not yet accepted their assignments, we have omitted the names at this time in order to print the program in this issue of Colorado Medicine.

NOVEMBER 10—MORNING SESSION

9:30 Registration.
9:40 Meeting called to order by the President.
Greetings from Mayor of Colorado Springs.
Announcements.
Mr. Guy M. Hanner, presiding
10:00 Paper—Record Room Problems.
Discussion.
10:25 Paper—Sanatorium.
Discussion.
10:50 Paper—Compensation Law.
Discussion.
11:15 Open Discussion on all Above Papers.
12:00 Adjournment.
12:15 Trustees Luncheon.

NOVEMBER 10—AFTERNOON SESSION

Dr. Maurice H. Rees, presiding
2:00 Paper—New Method of Hospital Financing.
Discussion.
2:45 Paper—Graduate Nursing Plan.
Discussion.
3:15 Recess.
3:30 Paper—The Efficient Dietitian and Her Duties.
Discussion.
4:15 Paper—Public Relations.
General Discussion.
5:00 Adjournment.
7:00 Banquet—Informal.

NOVEMBER 11—MORNING SESSION

Mr. Frank J. Walters, President, presiding
9:30 Business Meeting.
Reports.
Business.
Election of Officers.
10:30 Paper—Hospital Cooperative Council.
Discussion.
11:00 Paper—What Should the Hospital do in Making Adjustments in Charges, et cetera?
Discussion.
12:00 Adjournment.

NOVEMBER 11—AFTERNOON SESSION

1:30 Paper — What the Doctor Expects of the Hospital.
Discussion.
2:15 Paper—Should Hospitals Share in the Community Chest or Unemployment Funds?
3:00 Adjournment.

DIGITALIS THERAPY
DEMANDS
UNIFORMITY

THE Lederle Tablets of Digitalis were perfected as a result of six years' experience in the Cardiac Clinics of Greater New York with tablets of standardized digitalis leaf having a potency of 1 cat unit in 1½ grains of powdered leaf.

Only digitalis leaf which has been clinically demonstrated to possess *uniform activity*, is used in the preparation of Lederle Digitalis Tablets.

The intravenous method of Hatcher and Brody used by the Lederle Laboratories directly measures the cardiac effects of the drug.

Digitalis Tablets Lederle are supplied in packages containing 100 tablets (5 tubes of 20), in three sizes: ½ Cat Unit (¾ grain*), 1 Cat Unit (1½ grains*), 2 Cat Units (3 grains*).

*The comparison of the cat unit of digitalis to the grain of powdered digitalis leaf refers to the leaf selected as described above for the Lederle product namely, that one and one-half grains of the powdered leaf assay one cat unit. In the above table, grains are stated only as an approximate guide to the physician who has heretofore based his dosage on weight or volume.

Literature on Request

Distributed by

HEALY & OWENS
1400 Larimer Denver, Colorado

LEDERLE LABORATORIES INC.
New York

PRESCRIBE
KNOX
SPARKLING GELATINE
IN DIETS FOR DIABETES
LIQUID and SOFT FEEDING
REDUCING and ANEMIA

KNOX is pure, granulated plain gelatine with 85-86% protein content. Free from flavoring, coloring or sweetening—therefore combines safely and perfectly with fruits, vegetables and other foods for all diets.

KNOX *is the real Gelatine*

Data and Recipe Books on Request

KNOX GELATINE LABORATORIES, 418 Knox Ave., Johnstown, N.Y.



Protecting both mother and child against
CALCIUM DEFICIENCY

COCOMALT is a delicious, high-caloric food drink, valuable as a source of calcium, phosphorus and Vitamin D.

Prepared according to directions, Cocomalt adds 110 extra calories to a glass of milk—almost doubling the food-energy value. It increases the protein content 45%, the carbohydrate content 184%, and the mineral content (calcium and phosphorus) 48%.

Children love Cocomalt — drink more than they would milk alone. It aids in the development of bones and teeth—helps safeguard them against rickets.

During pregnancy and lactation, Cocomalt helps to protect the mother from drawing upon her own calcium reserve. Many physicians now recommend this delicious drink routinely for pregnant and nursing women. It is accepted by the Committee on Foods of the American Medical Association.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

Licensed by Wisconsin Alumni Research Foundation

Each ounce of Cocomalt (the amount used in preparing one glass or cup) contains not less than 30 Steenbock (300 ADMA) units of Vitamin D.

Comes in powder form, easy to mix with milk—hot or cold. At grocers and drug stores in ½-lb., and 1-lb. cans. Also in 5-lb. can for hospital use, at a special price.

FREE to Physicians

Send for a trial-size can of Cocomalt, *free*. Send name and address to R. B. Davis Co., Dept. 43X. Hoboken, N. J.

Cocomalt

Cocomalt is a scientific food concentrate of selected cocoa, sucrose, skimmed milk, malt extract, vanilla flavoring and added Vitamin D.

ADDS 70% MORE NOURISHMENT (FOOD-ENERGY) TO MILK
(Prepared according to label directions)

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

« CAMP »
SURGICAL SUPPORTS

Competent Fitter

SYBIL CASSELL

Ethical cooperation with the medical profession.

PRINTING
in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

Discussion of Fellowship Proposal

A SHORT time ago Mr. Thomas F. Dawkins of Chicago proposed a plan for the establishing of a fellowship, under the auspices of the American Hospital Association, to be granted to hospital administrators in recognition of their proficiency in hospital management. This fellowship would be similar to the fellowships granted by the American College of Surgeons and the American College of Physicians for worthy attainment in their respective fields. Mr. Dawkins recommends that certain high standards of accomplishment for hospital administrators be the guide in awarding such fellowships. He feels that this would be something toward which the hospital administrators might strive; and the holding of such a fellowship would recommend strongly to any Board of Trustees a candidate seeking a superintendency.

The editor has written to several hospital administrators in Colorado asking their opinions regarding this proposal.

One hospital superintendent says:

Much of that which has been accomplished in the general advancement of the American Hospital is due to those men and women who have shown outstanding ability in hospital management and who have acquired a well grounded understanding of their work through the school of experience and hard knocks.

If we are to encourage the development of successors, surely some established plan of coordination must be worked out. With this in mind, I would say that there is a definite place and an open field at this time for the granting of fellowships by the American Hospital Association to hospital administrators for proficiency in hospital management, commensurate of course with an established standard.

A Sister says:

I do not think that efficiency of service to our patients would in any way be enhanced by a fellowship for proficiency in hospital management. If such an association were established it seems to me that discussion of hospital problems now taken up in hospital meetings would be but repeated and the time and expense of such gatherings would, I think, be unwarranted. It is my belief that the high standards necessary for attainment of such award are being actively striven after by every worth-while administrator today.

Deep Rock

Distilled Water

Many of the ordinary so-called distilled waters contain iron or copper salts—caused by contact with iron or copper condensers.

Deep Rock is distilled from pure, soft artesian water. It comes in contact only with pure block tin in distillation and is free from mineral salts, making it an exceptionally PURE product for laboratory use.

Phone

TA. 5121

Deep Rock Water Co.

When we say S.M.A. is "Like Breast Milk"

We mean similar in ALL these ways:

1. **Fat** - the same, both in amount and in kind.
2. **Protein** - the same, both in amount and in characteristic low curd tension.
3. **Carbohydrate** - the same, both in amount and in kind, namely lactose.
4. **Minerals** - adjusted to the standards set by human milk.
5. **Correlation** - the relationship of food constituents to one another is the same as in breast milk.
6. **Other Physical Characteristics** - Caloric value, pH, depression of freezing point, electrical conductivity, are the same as breast milk.
7. **Buffer Curve** - varies within the same limits as breast milk.
8. **Digestibility** - gastric emptying time is the same as breast milk.
9. **Stools** - similar in color, odor, and consistency to breast milk, and the bacterial flora is predominantly acidophile.
10. **Vitamin A** - regarded by many as the anti-infective vitamin, is present in S.M.A. in adequate amounts.
11. **Uniformity** - Composition of S.M.A. is always the same wherever fed.
12. **Keeping Quality** - S.M.A. keeps and is safe to feed in any climate.
13. **Simplicity** - no complicated formula to harass the busy physician and confuse the mother.
14. **No Modification** - for more than 90% of well infants, S.M.A. requires no modification, although S.M.A. is very flexible.

PLUS:

The Antirachitic Factor - Breast fed infants are customarily given cod liver oil to prevent rickets and spasmophilia. S.M.A. *incorporates* enough cod liver oil to prevent rickets and spasmophilia.

For Further Details and Trial Packages Send Coupon Below.





S.M.A. was developed at the Babies and Childrens Hospital of Cleveland and is produced by its permission exclusively by

S.M.A. CORPORATION
4614 Prospect Ave.
Cleveland, Ohio

COPYRIGHT 1932 S.M.A. CORPORATION

What Is S.M.A.?

S.M.A. is a food for infants—derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar, potassium chloride and salts; *altogether forming an antirachitic food.* When diluted according to directions, it is *essentially similar to human milk* in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

Attach this coupon to your letterhead or prescription blank.
Please send me without obligation:

- ☐ Fourth revised edition of booklet on "Milk Allergy".
- ☐ Trial supply of S.M.A. and Feeding Suggestions.
- ☐ More details on similarity to Breast Milk.

23-112



MILK
Helps Protect Against RICKETS

Eminent scientists, such as

DR. MALLANBY, London, England

DR. HENRY SHERMAN
Columbia University, New York City

have proved that diets are more effective in arresting and preventing tooth and bone defects if they contain liberal amounts of milk. Milk is richest and most available source of phosphorus and an important though not entirely adequate, source of vitamin D.

At Your Door or at Your Store

The
CARLSON-FRINK CO.
1230 13th St. MAin 0111

Another superintendent writes:

I think that the granting of fellowships by the American Hospital Association to Hospital Administrators for proficiency in hospital management a good thing provided the many different sides pertaining to hospital management be taken into consideration. For instance, one hospital has unlimited funds to spend and naturally the administrator can make a greater showing when such is the case. Another hospital is limited in funds and has to go without even necessities at times and that administrator cannot make any showing. All he can show is that he is balancing a budget by cutting expenses below the point of efficiency. Especially at a time like this do I think that the granting of such a fellowship would be difficult for the above reasons. Under ordinary conditions I would say that it would be a good thing and would probably stimulate the administrators to greater efficiency and even now, it might be all right provided the Association had taken into consideration the above things, for they are very, very important.

A doctor who is an administrator writes:

I am very much in sympathy with the idea that a fellowship be granted by the American Hospital Association to hospital administrators for proficiency in hospital management. I can see no harm, and can readily appreciate that great good might come out of any such arrangement.

A physician located outside of Denver states:

If this is just another organization, I am against it; but if it can show that it will enhance proficiency in hospital management, I am for it. If it means another $100 for membership and $25 a year as dues, as the organizations require, I think we should look at this subject very seriously and have it discussed by the administrators at our next meeting.

Another says:

It might stimulate proficiency.

A trustee of the Association writes:

I would be in favor of establishing a College of Fellows in the American Hospital Association provided such fellowships should be granted on some other basis than merely paying the annual dues. I would suggest that there should be some form of recognition for those hospital superintendents who have shown a long and effiicent service in that field. I do not believe that anyone who has been in the field for less than five years should be considered as a fellow. There should also be recognition of the type of hospital supervised, and possibly some recognition of the previous training of the superintendent.

Another administrator says:

It appears at a glance that it would be a very

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically
Special classes for Nurses.

Limited Class Now Forming
Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R *Elna Hoagland, Pres.* 3762 High St.

Conway's
FLORAL SHOP
1064 SO. GAYLORD
PEarl 0622

THANKSGIVING DAY
NOVEMBER 24

A special arrangement of flowers, including candles, will make your table more festive. Your hostess will be delighted with a gift of flowers on Thanksgiving.

AIR TRANSPORTATION

Safety — Comfort — Speed

Waco and Stinson Aircraft

READY TO GO—WHEN YOU ARE



WESTERN FLYING SERVICE

Municipal Airport, Denver. Ph. York 8273



SANITARY SPECIALTIES COMPANY

2819-21 Larimer St. *Manufacturers and Jobbers* *DENVER, COLORADO*

OBSTETRIC NAPKINS
CRESOLIS COMPOSITUS
DEODORANTS
FLOOR WAXES

SANITATION MEANS HEALTH AND EFFICIENCY

NEUTRAL CLEANING SOAPS
INFANT'S LIQUID SOAP
LIQUID TOILET SOAPS
GREEN SOAP U. S. P.

HOSPITAL SOAP EQUIPMENT

"Everything for the Sanitation and Maintenance of Hospitals and Institutions"

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC
BATH INSTITUTE

We Cooperate with the Medical Profession

621 19th ST. DENVER

MERCUROCHROME
220 SOLUBLE
in
OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

good thing for hospitals employing a new superintendent as well as a benefit to superintendents, because it would give them an honor which would be well deserved and would stimulate those who were not ready to receive such an honor.

EDITORIAL NOTES AND COMMENT

(Continued from Page 427)

Social Insurance Undermines National Character*—(Continued)

Someone has said, "Happy is the nation that has no history." Whoever said this probably had in mind the old type school history text books which contained little besides records of military campaigns, revolutions, and international wars. Viewed from that standpoint the epigram was unquestionably true. Today a more suitable epigram would be, "Happy is the nation that has no need for charitable organizations or devices." The ideal society would be one in which every individual can and does secure a decent living for himself and those dependent upon him by the "sweat of his brow," or by mental exertion, or, what would be better still, by the application of both brain and brawn.

There is no fundamental difference between outright charity and social insurance; both undermine character; both have a tendency to pauperize the citizen, for both rob the individual and his self-reliance and his enthusiasm and his urge for industry; they both penalize the honest, frugal and industrious and favor the lazy shifters and immoral because they inevitably favor the unfair and inequable distribution of the results of labor; both encourage malingering and favor neuroses; both often give something for nothing or much for little, which is the basis of parasitism, and both delay the ultimate goal when every man shall reap the fruits of his labors.

The man who once accepts charity, particularly if it is not a case of dire necessity, is not quite so fine a man as he was before. He has lost something that nothing can

*One of a series of articles on Social Insurance by Dr. Edward H. Ochsner.

REDUCE YOUR OVERHEAD by using

M. D. STANDARD STATIONERY

250 Letterheads, 8½"x11"
250 Envelopes, 6¾" Size
250 Statements, 5½x6½
} $5.00

All neatly printed in black ink on 20-lb. Hammermill Bond. Samples on request.

THE MILES & DRYER PRINTING COMPANY
1936-38 Lawrence St. DENVER Telephone KEystone 6348

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources We Insure Only Ethical Practitioners

David Jacobs, Manager *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.
BALTIMORE, MARYLAND

LET
The WESTERN MESSENGER SERVICE



At your service, when you're in a hurry

Phone TAbor 5345

424 18th St.

Run Your Errands Denver Colorado

TAbor 1830 1534 COURT PL.

STURGEON ELECTRIC CO.
D. D. (DAVE) STURGEON

PROMPT ATTENTION TO YOUR ELECTRICAL NEEDS

REPAIRING APPLIANCES PLATING

Burlington Route

Improved Service
to and from
ST. LOUIS

"Aristocrat" sleepers (drawing rooms, compartments, sections) and high-grade chair cars (seats free) are now operated through between Denver and St. Louis—24-hour schedule — combined with famous "Aristocrat" between Denver and McCook. Cafe club car between Wymore and St. Louis.

●

Tickets and Information
17th and Champa St., Denver
F. W. JOHNSON, General Agent
Phone KE. 1123

Another Through Sleeper to St. Louis, 11:45 P. M.

Coach Service Also.

Read Down		Read Up
4:30 P.M.	Lv. Denver Ar.	1:15 P.M.
8:50 A.M.	Ar. St. Joseph. Ar.	10:57 P.M.
10:35 A.M.	Ar. Kansas City Lv.	9:00 P.M.
5:30 P.M.	Ar. St. Louis Lv.	2:15 P.M.

Kansas City Passengers Change at St. Joseph

replace. War, pestilence, or general disaster may reduce anyone of us to want and penury and then there is no disgrace in accepting aid from our fellow-men; but under ordinary circumstances no able-bodied individual with fair intelligence and health has any moral right to that which he has not honestly earned.

The proponents of Compulsory Health Insurance will undoubtedly say that it was with the view of saving men and women from the stigma of being paupers and the evil effects of pauperism that this and other phases of social insurance were brought forward. Exactly, but what has actually happened they did not foresee. As is so genacted on an emotional basis instead of on erally the consequence when a law is ensound reasoning and adequate experience, an element was introduced even worse than pauperism; besides, pauperism was not relieved or even mitigated.

There are two distinct types of paupers: First, there are the mentally and morally subnormal who are not in any way injured by the stigma of pauperism and who still remain paupers because no Compulsory Health Insurance law so far devised includes or can include them. They are the "unemployables" whom industry cannot use. The second class are old people who in their youth have been lazy or extravagant, or who have lost their savings through poor investments. Those who have been lazy and extravagant are simply reaping their just reward and have no one to blame but themselves and it is morally wrong for the government to tax the thrifty and industrious for their support except in almshouses. The way to deal with the problem of the investment sharks is to teach the pupils of our high schools something about investment and to hang the gold brick and non-security salesmen, or if this is too drastic, devise some other way of putting them out of business.

Compulsory Health Insurance has simply added parasitism to pauperism. The effect upon the insured and upon the public in general is almost as bad as it is on the medical profession. It encourages malin-

GAS HEAT

For uniform temperature and
a valuable aid to
robust health

Sig:—Take Daily, Fall to Spring

This prescription can be filled at

Public Service Company of Colorado

TRADE-MARK

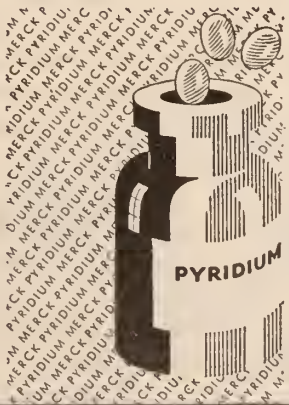
PYRIDIUM

PHENYLAZO-ALPHA-ALPHA-DIAMINO-PYRIDINE MONO-HYDROCHLORIDE
(Mfd. by the Pyridium Corp.)

. . . FOR THE TREATMENT OF GENITO-URINARY INFECTIONS

Combatting genito-urinary infection of venereal or non-venereal origin is a problem many physicians encounter almost daily. In the treatment of gonorrhea, prostatitis, pyelitis, pyelitis of pregnancy, pyelitis in children, vaginitis, cervicitis, and cystitis—where urinary antisepsis is important—physicians are showing a marked preference for Pyridium because of its chemical stability, penetrating action, and antibacterial properties following oral administration. Your local druggist can supply Pyridium in four convenient forms: powder; 0.1 gm. tablets in tubes of 12 and bottles of 50 for oral administration; solution for irrigations; and as ointment for topical applications.

ACCEPTED
AMERICAN
MEDICAL
ASSN.
Council on Pharmacy and Chemistry



MERCK & CO. INC.
MANUFACTURING CHEMISTS
RAHWAY, NEW JERSEY

E5B1

MERCK

A Real Flush Valve



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter



Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen or Silk. Washable as underwear. Three distinct types, many variations of each.

The Picture Shows "Type N"

Storm belts adaptable to all conditions, Ptosis, Hernia, Pregnancy, Obesity, Sacro-Iliac Relaxations, High and Low operations, etc.

Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia

gering and deception; it puts a premium on sloth and shiftlessness and a penalty on industry, integrity, and thrift; it robs industry of its just reward; and it encourages parasitism.

One of the first effects after its introduction in Germany was the changed attitude of a large group of the insured. Before the law went into effect, patients came to their physicians for the relief of real ailments; after it went into effect, an ever-increasing number came with imaginary and simulated ailments for the purpose of getting the sick benefit stipend or free hospital care. The latter was particularly the case in the fall of the year when many came complaining of things that were difficult to diagnose and hence difficult to exclude, such as spinal concussion, neuritis, and vague abdominal pains. As time has passed, this abuse has gradually grown to appalling proportions as the following statistics indicate. Dr. Potts of Oak Park, cites the following:

In a check-up in Brawnschweig, two thousand eight (2,008) people on the sick list were asked to report for a check-up examination. This induced eight hundred sixteen (816) to report for work at once, two hundred eighty-nine (289) were found fit for work, and only nine hundred three (903) or less than 45 per cent of those receiving sick money were actually sick. The proponents of Compulsory Health Insurance will undoubtedly say that this is an individual instance. But not so. This abuse is so almost universal that it is seriously affecting the general honesty of the rank and file of the citizens of those countries where it has been in operation the longest. Social insurance is one of the major factors which has brought Germany to the very verge of economic ruin, and worse than even that, it is undermining the fundamental honesty and moral integrity of the German citizen.

Cosmetics Labeled With Therapeutic Claims Subject to Action Under Food and Drug Law

The Food and Drug Administration has noted a recent material increase in the number of manufacturers who are labeling cos-

MATCHED OFFICE SUITE

IN PERIOD DESIGN

at just 1/2 price

Purchased from a Grand Rapids manufacturer who discontinued his line of office furniture and offered the salesroom samples at exactly one-half the regular prices.

This is a professional man's suite consisting of flat top desk, narrow refectory table, cabinet, carved four-fold screen, swivel chair and arm chair; in carved English oak with deep red leather.

STANDARD PRICE $780.00. OFFERED FOR $390.00

HOWARD LORTON INC.

724-746 SPEER BOULEVARD

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

NO CULTURES NEEDED



The rational, natural way to change the intestinal flora is by changing the soil.

LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)

Provides the desirable carbohydrate medium for the growth of the normal protective germs in the colon.

Samples and literature on request.

The Battle Creek Food Co.
BATTLE CREEK MICHIGAN

Announcing *The Introduction of*

THE STILPHEN
AIR CONDITIONING UNIT

Dependable—Simple—Economical
Particularly adapted for Hospitals—Institutions
Write for circulars illustrating and describing this machine

C. A. Stilphen Engineering and Manufacturing Co.
1129 Eighteenth St., Denver, Colo.
KEysotne 0929
Exhaust Fans for Ventilation



Nature Made It!

ORIGINAL
MANITOU
Sparkling
Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

metics with claims for the prevention or cure of disease, thereby rendering the goods subject to action under the Federal food and drugs act, according to W. G. Campbell, director of regulatory work, U. S. Department of Agriculture.

"Tooth pastes, face creams, hair dressings, shaving soaps, and other cosmetics, normally not to be classed as drugs, become subject to regulation under the national food and drug law only when they are labeled with claims for the prevention, mitigation, or cure of disease," says Mr. Campbell. "Tooth pastes are sometimes labeled as antiseptics or as cures or preventives of diseases of the mouth. These, when so labeled, if shipped interstate, become subject to Federal regulation. Some manufacturers represent face creams as having power to cure pimples and other skin diseases; others label hair dressings as hair restorers, and shaving soaps as antiseptics or destroyers of disease germs. Articles so labeled are subject to action under the food and drugs act, since technically they then become drugs."

Intestinal Tuberculosis

"Mogena first recapitulates the gastro-intestinal disturbances likely to occur in tuberculous patients, but not due to local tuberculous lesions and consequently of a more benign prognosis, such as dyspepsia with ptosis of the stomach and intestine in patients who have lost considerable weight and in women after pregnancy; dyspepsia produced by forced feeding; diarrhea resulting from achylia with its natural train of symptoms, from tuberculous toxemia and from deglutition of sputum. Intestinal tuberculosis is primary in from 5 to 10 per cent of the cases, especially in children, and secondary, as a rule, to pulmonary tuberculosis; infection occurs by deglutition of sputum and through the circulatory and lymphatic routes. Its site of election is the ileocecal region, where it attacks the solitary and the aggregated lymph nodules and surrounding tissue. The initial symptoms consist of slight gastro-intestinal disturbances, nausea, constipation or diarrhea, anorexia, vague pains in the abdomen and so on. The later constant symptom is

AURORA SHEET METAL WORKS

The Recollection of Quality Remains Long After the Price Is Forgotten

WARM AIR SPECIALISTS

Modern Air Conditioning for Homes of any size, Your present Warm Air Plant Modernized. Gas, Coal and Oil Furnaces, Air Washers and Humidifiers for Steam and Hot Water Plants. Sheet Metal Work in all branches. Repairing.

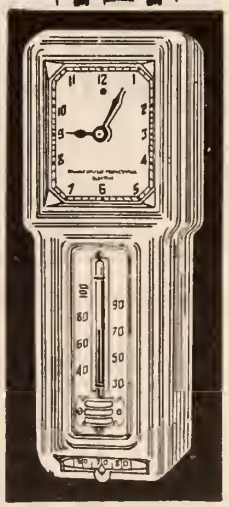
Drop us a card or phone for inspection and survey of your heating plant. No obligation on your part.

Phones
Res. YOrk 6677J
Shop, Aurora 92J

Temperature Control is Health Control

YOU KNOW that an even, regulated temperature is of paramount importance as a safeguard to health, both in the operating room and in the convalescent's room. You insist upon this even temperature in the Hospital, but are you as careful about it in your home? Certainly, your family's health should be equally as important as that of your patients. We can't tell you anything that you don't know about the regulation of temperature to health in winter; or about pneumonia, cold, and other disease prevention; but *we can* tell you about the new All-Electric Minneapolis-Honeywell Thermostat (illustrated at the right). How it will maintain an even temperature in your home, all day long; how it will lower the temperature for the sleeping hours and raise it again in the morning; how you can set it *once* and *forget* it. . . . No more twice-daily trips to the furnace room; how, through its economy of operation, it will pay for itself in fuel saving. And, most important of all, how it will safeguard your family's health this winter. Modeis for the bungalow to the largest hospitals or office buildings.

Call or write for full information and prices.



Beautiful Electric Clock Thermostat with self - starting motor.

THE DALY COMPANY

DISTRIBUTORS

1635 Blake Street Denver, Colorado

Phone TAbor 6166

THE TULANE UNIVERSITY
OF LOUISIANA
Graduate School of Medicine
Approved by the Council on Medical Education of the A. M. A.
Postgraduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted. For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

24-HOUR SERVICE
AMBULANCE *and*
PULMOTOR SERVICE
DAY AND NIGHT PHONE
Main 830
John E. Wylie, Mgr.
112 Exchange Place, Colo. Springs, Colo.
Packard Invalid Sedan
Regular Equipped Ambulance

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5911
DAY STORAGE $5 PER MONTH
Wash Given with First Month's Storage
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

"Say it with flowers"
Park Floral Co.
Phones M. 1713-1714 1643 Broadway

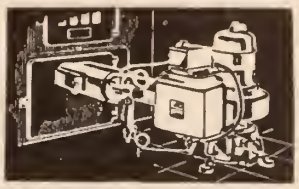
diarrhea, up to the point of dehydrating the patient, abdominal pain in the right lower quadrant and borborygmus, all due to increased peristalsis and lack of absorption of ingested liquids. Alternations of constipation and diarrhea have great diagnostic value. Temperature changes are unreliable; loss of weight is rapid in cases in which diarrhea persists. The possible complications are hemorrhage, perforation, and cicatricial stenosis. Hemorrhage is rare because the slow development of the ulcerations gives time for obliterating endarteritis or thrombosis to plug up the vessels. Perforation is more frequent and results in a localized peritonitis with adhesions or an abscess, with their individual symptoms. Stenosis may be slight and without perceptible symptoms, but in rare cases may lead to intestinal obstruction. Tuberculoma may be present, especially in patients aged from 20 to 40 years, and although often difficult to diagnose, it will be recognized by its insidious beginning with more continuous painful sensations in the right iliac fossa; alternations of constipation with diarrhea; loss of weight and appetite; nocturnal pains, and the presence of a tumor, hard, irregular, painful on palpation, and mobile, which later may produce intestinal obstruction. The lower part of the colon and the rectum may be the seat of a chronic tuberculous hypertrophy, which can be recognized by digital examination and rectoscopy. The possibility of extension of the lesions to the peritoneum and the female genital organs is to be remembered. The diagnosis rests on the study of the symptoms mentioned and the finding of occult blood and soluble albumin. The discovery of the tubercle bacillus has little value in proving localization. Roentgenographic studies are valuable and should be made with the greatest care, the barium meal being followed up every hour from the time it leaves the stomach. The prognosis depends on the time factor and the extension of the lesion, the prognosis of the pulmonary lesion, and the general and social conditions of the patient so far as they will allow him to follow the necessary treatment. Treatment consists of

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.



WAYNE OIL BURNERS

HEALTHFUL — Automatic
Economical Oil Heat
With SAFETY

Provides "New Freedom" From Furnace Worries

Refrigerating & Oil Heating Service
Distributors
251 Broadway SPruce 3610

A GOOD INVESTMENT

Requires a spread of risk with respect to all the different economic interests.

Consider a cross-section of the following:

First mortgages on improved real estate
U. S. A. bonds and notes
State, Province, County and Municipal bonds.
Public Utility Bonds.
Dominion of Canada Bonds.

This distribution constitutes but one-fifth of the attributes required by the Law of Averages as applied to Good Investments.

GEORGE W. MATTSON
Specializing in estate conservation.
KE. 6495 201 Republic Bldg.



OUR efforts are directed toward giving the public the best milk possible, keeping in mind that milk, to be good, must be clean. Rich, pure milk, properly pasteurized plus the "Silver Seal" Meadow Gold bottle, assure you to the utmost in quality and cleanliness.

WINDSOR-MEADOW GOLD
MAin 5131

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of
ORTHOPEDIC APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.
Phone KEystone 2702
Denver, Colo.

Meeker Home

* * *

A Home and School for Sub-Normal Children

* * *

Study rooms, playgrounds, fruit and vegetable garden, dairy and home influences.

Rates very reasonable.

LYDIA G. MEEKER, Director
5187 Lowell Blvd. GAllup 4849
Denver

the general treatment for tuberculosis with reliance on administration of *vitamin C and D.* Surgical treatment by excision or anastomosis is recommended in early cases when the general condition of the patient allows it."—J. A. M. A.

IMMATERIA MEDICA

"For a whole year I suffered terribly—coughing, gasping, strangling and choking."

"Oh, you poor man. I suppose it was asthma "

"No, I was a guard in the New York subway during rush hours."

* * *

Justice—"How did the accident happen?"

Stremic—"Why, I dimmed my lights and was hugging a curve."

Justice—"Yeah, that's how most accidents happen."

* * *

"Jim, you've heard the expression, 'The Witching hour,' haven't you?"

"Certainly I have."

"Well, do you understand what it means?"

"Sure I do. The witching hour is that hour when I come home late at night and my wife starts in whiching me like, 'Wel, which story is it tonight?' "

* * *

"Jim, what do you call your canary bird?"

"We call it Joe."

"Joe, is that for Josephine or Joseph?"

"We don't know. That's why we call it Joe."

* * *

"What are you making those awful faces for, George?"

"Gee, I've a horrible toothache. Nothing seems to stop it."

"Well, when I have a toothache I go home and my wife takes me in her arms and kisses me and hugs me close and pretty soon the toothache is entirely gone. Why don't you try the same thing?"

"Fine, I will. Is your wife going to be home this afternoon?"

* * *

Tailor (having measured customer for suit): "And how would you like the pockets, sir?"

MacTavish: "Well, just a wee bit deeficult to get at."

* * *

"Give a spendthrift a clear field and he'll mortgage it."

* * *

A Doctor Advertises

A New Mexico doctor has broken the code and taken to advertising in his home newspaper. Copy for his first ad read something like this: "I am sick and tired of charging baby cases. If you can't pay for them, for God's sake and humanity's sake, quit having them."

* * *

"My I present my wife to you?"

"Many thanks, but I have one."

WE GIVE YOU OUR BEST

In the Real Quality of

TAYLOR-MADE

Corsets, abdominal belts and KEN-LASTIC stockings, with SERVICE made possible by many years of experience in surgical fitting.

CHAS. B. E. TAYLOR

ELIZABETH KENDRICK TAYLOR

204-5 McClintock Building
1554 California St.
Denver, Colo.
MAin 2357

Thirty-nine years in the same location

SELLING HIGH-GRADE

COAL, WOOD
CHICKEN FEED
HAY AND GRAIN

Honest Weight *Prompt Delivery*

The DeSellem Fuel and Feed Company

PH. TAbor 3205

3463 Walnut St. Denver, Colorado

DIAMONDS
WATCHES
JEWELRY

A complete assortment of quality merchandise at very moderate prices.

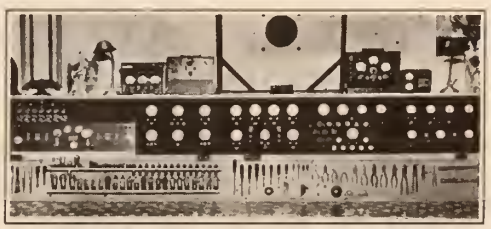
Phone your requirements and we will gladly send anything from our stock to your office for your examination.

Jos. Goalstone

JEWELER

Formerly Charles J. Doersam Jewelry Co.

TAbor 3782 405 16th St. Denver



A Portion of Our Well Equipped Service Shop

FRANK D. RAUBER

WE SELL MAJESTIC RADIOS ON PAYMENTS

Expert radio repairing on all kinds of radios. Installation and service of automobile radios.

1428 Court Pl. TAbor 5589

At Last!—

WHOLE WHEAT BREAD

The Way the Doctor Wants It

VITAMINES—NUTRITION—ROUGHAGE

All the nutrition of the wheat grain retained. Nothing added—nothing taken away.

OTTO'S BAKERY

Wm. Otto

611 N. ROYER ST. MAIN 4778

COLORADO SPRINGS

Where a High Standard of Cleanliness Always Prevails

Fine Upholstered Furniture Made to order

Furniture repairing of all Kinds

Henry Meyer

Upholsterer and Furniture Manufacturer

DENVER

538 East 17th Ave., at Pearl St.

Phone TAbor 4087

COLORADO COLLEGE *of* PODIATRY

1554 California St., Denver

Bertha DeWolfe, D.S.C., Dean

Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

APEX FIXTURE CO.

Cabinet baths and special bath fixtures made to order for Hospitals, Sanitariums and Physicians.

628 15th St., Room 12 Denver, Colo.

"We've got to give him something that'll backfire on his nose and make him sneeze," said Dr. Auspice, the veterinarian called to treat a lumberjack. "Mix up a pint of linseed oil, a half cup of salt brine, some castor oil and red pepper. Let me know in the mornin' how he feels."

The next morning the foreman called the horse doctor on the phone.

"Lars sneezed last night," he said.

"That's fine," said Dr. Auspice. "How many times?"

"Three," snorted the foreman. "Once before and twice after he died."

* * *

"Doctah," asked a lady of color, "Ah's come to see if yo' am going to order Rastus one of dem mustard plasters again today?"

"I think perhaps he had better have one more," answered the medico.

"Well, he says to ax yo' kin he have a slice of ham wid it, count of it's a mighty pow'ful prescription to take alone."

* * *

Nurse—"Sir, the patient in Room 17 is complaining about the lack of attention he's getting."

Surgeon—"Well, give him what he wants."

Nurse—"I'll resign first!"

* * *

"How many fish did you catch last Saturday?"

"Six, my dear—all beauties."

"That fish dealer's made another mistake. He charged us for eight."

* * *

Stranger (at party): "Dull, isn't it?"

Other: "Yes, very."

Stranger: "Let's go home."

Other: "I can't; I'm host."

PHOTO ENGRAVING AND MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith



ETHICAL ADVERTISING—Readers of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all. —WORTH YOUR WHILE.

DOCTOR: PHOTOGRAPHIC ART IS THE IDEAL CHRISTMAS GIFT

It is personal—individual—sincere.

The cost is in keeping with the times. The work is what you would expect from the foremost studio of the Rocky Mountain section.

MAin 5710 **G. ALLEN LAINSON STUDIOS** DENVER
BROWN PALACE HOTEL

CUSTOM MADE
NU-BONE
SUPPORTING OR FOUNDATION GARMENTS

For many years the Nu-Bone line of Corsets has received the unstinted endorsement of members of the Profession. Difficult cases invited.

RUBY A. BETTS
22 Lincoln SPruce 7998

for Quality
Zinc Etchings
Color Plates - Half Tones
Seeleman-Ehret
Photo Engravers
Tabor 2701 1950 Champa Street
Denver Colorado

The **Cocks-Clark** *Engraving Co.*
Illustrators — Designers
Photo Retouchers and Engravers
Tabor 6244
2200 Arapahoe St.
DENVER



SMALL ANIMAL HOSPITAL

Expert animal surgery made possible by modern equipment.

DR. H. G. WEIGAND
DR. M. E. SPRATLIN
2750 South Broadway Phone SOuth 0391
Denver

COAL or GAS FURNACES

REPAIRING — INSTALLING
CLEANING

Friendly service always at a price you are glad to pay.

W. F. HIND
1139 LIPAN ST., DENVER KEystone 2631

TROPICAL FISH FANCIERS, ATTENTION!

The Denver Aquarium Studio
Wishes to introduce
ARTIFICIAL SUNSHINE

By ultraviolet light for your fish and plants, $1 and up; also German imported foods; many tropical fish and supplies.

145 Logan PEarl 8219
Evenings, 6 to 10



A MESSAGE TO

DOCTORS

Fitting shoes is our specialty. We are anxious to do it perfectly because we know that practically all foot ailments begin with poorly fitted shoes. We are anxious to give your Patients the Maximum of comfort and assurance against Foot Ills, and this very often will help along your treatments. Your Prescriptions for the proper shoes will be filled correctly.

CLUB FOOT SHOES FOR CLUB FOOT CONDITION

MENIHAN ARCH-AID SHOES FOR WOMEN

Thompson Bros. Special Arch Shoes for Men

Doctors are invited to send or bring their patients to this store.

REPUBLIC ORTHOPEDIC SHOE CO.

335 Sixteenth St.

MAin 6024 Republic Building, Street Floor Denver, Colo.

The General Use of ORANGE TANG Is Becoming Well Established in

HOSPITALS AND SANITARIUMS

There's a Reason for It!

ORANGE TANG

is made from orange juice concentrated and dehydrated.

It has the fresh, delicate, piquant flavor of the original orange and the natural mineral contents.

Have you tried ORANGE TANG TABLE SYRUP? It is delightful. For people who are particular and ones who like syrup but syrup does not like them—here's an innovation.

Samples Supplied on Request

COLONIAL FOOD PRODUCTS COMPANY

814 TWELFTH STREET DENVER MAin 9129

TOY TROPICAL FISH

40 Varieties Reasonably Priced

WATER LILIES POND SUPPLIES
FANCY BREEDING GOLD FISH

Ship anywhere; write for price list.

A Full Line of Aquariums, Aquatic Vegetation and Supplies

CHARLES T. GORE

4524 Decatur St. GAllup 0410

L. D. DUTCHER Phone 2995-R



DUTCHER AMBULANCE SERVICE

BALLOON EQUIPMENT
INVALID SEDANS

315 West 4th Street Phone 390
PUEBLO

WANTADS

POSITION WANTED

Graduate Nurse with five years surgical experience wants position in operating room or doctor's office. Will go out of Denver. Box 1, Colorado Medicine.

PRACTICE FOR SALE

Equipment and X-ray if desired. Terms. N. E. Colorado. Population 1,400. Address Dr. X, % Colorado Medicine.

POSITION WANTED

Registered technologist and registercd x-ray technician with eighteen years' experience in tuberculosis work, the last sixteen years at Agnes Memorial Sanitarium. Now seeking location due to closing of the sanitarium on July 1, 1932. Margery M. Malins, 2265 Forest St., Denver; telephone FRanklin 1997-J.

Patronize Our Advertisers

PRESCRIPTION PHARMACISTS

to the members of the

COLORADO STATE MEDICAL SOCIETY

City	Name and Address	Telephone
Denver	R. K. ANTHONY, 4901 Lowell Blvd.	GAllup 0294
Denver	BAIRD Pharmacy, 3850 Federal Blvd.	GAllup 0549
Denver	BROTHERS Pharmacy, 5001 E. Colfax	YOrk 2171
Denver	ESHER Drug Co., 2335 E. 28th Ave.	YOrk 0296
Denver	IMPERIAL Pharmacy, 319 16th St.	KEystone 1550
Denver	MUDGE Pharmacy, 3801 Walnut St.	TAbor 4523
Denver	SIXTH AVE. Pharmacy, 600 E. 6th Ave.	SPruce 9706
Englewood	JOHN T. HEPPTING, 3398 S. Bdwy.	Englewood 744
Grand Junction	COPELAND'S Apothecary, 523 Main St.	Grand Junction 39
Littleton	LITTLETON Drug Co., Littleton	Littleton 133

ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Ambulance Service Co. 32
American Ambulance Company 23
American Medical and Dental Association Cover 2
Apex Fixture Company 36
Aurora Sheet Metal Works 31
Battle Creek Food Company 30
Betts, Ruby A. 37
Boulder-Colorado Sanitarium 16
Carlson-Frink and Company 22
Cassell, Sybil 20
Chicago, Burlington & Quincy R. R. 26
Children's Hospital 13
Cocks-Clark Engraving Company 37
Cocomart 19
Colonial Food Products Company 38
Colorado Artificial Limb Company 33
Colorado College of Podiatry 36
Colorado Springs Psychopathic Hospital 15
Conway's Floral Shop 23
Corrective Foot Fitters Cover 4
Cragmor Sanitarium 14
Cutter Laboratory Cover 4
Daly Company 31
Daniel-Smith Engraving Company 36
Deep Rock Water Company 21
Denver Aquarium Studio 37
Denver School of Swedish Massage 23
DeSellem Fuel and Feed Company 35
Dry Milk Company 5
Dutcher Ambulance Service 39
Garden Farm Dairy 29
Glockner Sanatorium 13
Goalstone, Jos. 35
Gore, Chas. T. 39
Gray and Palmer 18
Hagberg's Convalescent Home 17
Health Products Corporation 7
Hind, W. F. 37
Hynson, Westcott & Dunning 24
Jones, William 34
Knox Gelatine 19
Lainson, G. Allen Studio 37
Lederle Laboratories 19
Lilly, Eli & Company 8
Lilly, Eli and Company Insert Between 4 and 5
Lorton, Howard, Inc. 29
Manitou Mineral Water Company 30
Matchett, Mrs. Carolyn 17
Mattson, G. W. 33
McClelland Home 18
Mead, Johnson & Company 6
Meeker Home 34
Merck and Company 27
Meyer, Henry 36
Miles & Dryer Printing Company 25
Navy Gas and Supply Company 2
Nichols, David 17
Old Homestead Bread Company 4
Otto's Bakery 36
Owen Coal Company Cover 3
Palmer Central Business School 2
Park Floral Company 32
Parke, Davis & Company 3
Pfister, Mrs. J. M. Blinn 16
Porter Sanitarium 11
Prescription Pharmacists 39
Public Service Company 27
Rauber Radio Service 35
Refrigerating and Oil Heating Service 33
Republic Orthopedic Shoe Store 38
Robinson Clinic 12
Roche Ambulance Service 16
Rowlands, Ann 17
S. M. A. 21
Sachs-Lawlor 32
Sanitary Specialties Co. 23
Seeleman-Ehret Photo-Engraving 37
St. Francis Sanitarium 16
St. Joseph's Hospital 14
St. Luke's Hospital 12
Shirley Garage 32
Shirley-Savoy Hotel 11
Small Animal Hospital 37
Squibb and Sons 1
Stilphen Engineering Co. 30
Storm, Katherine L., M.D. 28
Sturgeon Electric Company 25
Taylor, Chas. B. E. 35
Therapeutic Bath Institute 24
Trowbridge Training School 20
Tulane University 32
United States Fidelity & Guaranty Co. 25
Walgreen Company 5
Wantads 39
Western Flying Service 23
Western Messenger Service 25
Wetsern Newspaper Union 20
White Flushing Valve Co. 28
Windsor Farm Dairy 33
Woodcroft Hospital 15
Worrell's Rest Home 17

Taking the dam---

out of DAMPER!

Providing a uniform temperature in your home always.
Saving fifty per cent in your coal bill.
Elimination of soot and much of the ashes.
Purchase on payment plan made convenient by coal saving.

The

CARD HYDRAULIC STOKER

THE MODERN FIREMAN

Smaller than your washing machine, but far more efficient than any janitor, standing at attention twenty-four hours a day in front of your furnace.

Installed under guarantees that remove any possibility of disappointment. Send for descriptive folder. No obligation, of course.

The OWEN COAL COMPANY

Distributors

801 West Bayaud Avenue — Phone SPruce 4428

DENVER, COLO.

We are specialists in coal. We prescribe the proper coal for any furnace or heating plant. You can save money by phoning this information when you order your coal. You wouldn't prescribe sugar for a dietetic. Ask us about "diet facts" for your heater. By saving you money on your coal, we secure your patronage, that's what we want. Give us an opportunity to prove this. The advantages are mutual.

"4 out of 5 have it"-them.

3 OUT OF 4 SHOULDN'T!

84% of the population suffer from colds each year according to United State Public Health Service.

Preseasonal immunization now will completely protect many of your patients, and render the subsequent attacks of the others less severe and of shorter duration.

Specify CUTTER vaccines—made from cultures constantly being obtained throughout the west. More specific for western use; and the constant change assures greater specificity for each season than if the formulae remained static.



The CUTTER Laboratory
Established 1897
BERKELEY, CALIFORNIA

CORRECTIVE FOOTFITTERS

44 South Broadway Phone Spruce 5276
Denver, Colorado

Corrective shoes with double arch supports for the entire family, fitted by expert and experienced foot fitters from an orthopedic standpoint and according to the type of shoe best adapted to each foot. Eliminate your foot troubles by wearing shoes fitted correctly and scientifically. We co-operate with the medical profession through our licensed chiropodists and trained shoe-fitters, as 90 per cent of our fittings are with people having foot ailments.

Special lasts made for abnormal feet. X-ray service at our Denver store. Write us directly for catalogue and details for ordering by mail or for interview with our traveling representative when in your territory. Mail orders given special attention.

COLORADO MEDICINE

Incorporating a Wyoming Section

Official Journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association

VOL. 29 NUMBER 12 DECEMBER, 1932

Single Copy 25 Cents
$2.50 PER YEAR

Entered as Second Class matter, Jan. 22nd, 1926, at the P. O., Denver, Colo., under the Act of Congress of March 3rd, 1879. Accepted for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized July 17, 1918

TABLE OF CONTENTS

Editorials
- Liver Therapy 457
- State Society Postgraduate Instruction 458
- Facilities for Cancer Control 458
- Misuse of the Term "Drug" 459
- Encourage Use of Pasteurized Milk 459
- Economics Discussed by Secretaries and Editors 459

Original Articles
- The Causes of Changed Mortality Rates. John B. Crouch 460
- The Voice in Health and Disease, Harvey S. Rusk 463

Public Health Notes 465
Library Notes, Book Reviews 466
Medical Biography 467
Secretarial Notes and Comment
- Sixty-Second Annual Session, Colorado State Medical Society
- Proceedings of the House of Delegates 468
- Proceedings of the General Meetings 491
- Index to House of Delegates 494
- Medical Societies 495
- Colorado News Notes 496
- Woman's Auxiliary 496
- Officers, Committees, Secretaries 497
- Directory of Members, Colorado State Medical Society 498

Wyoming Section
- Editorials
  - Frederick Lewis Beck, Our President 518
  - Congratulations 518
  - Physicians of Wyoming, Greeting 518
- Obituary 519
- Thirtieth Annual Session, Wyoming State Medical Society 520
- Original Articles
  - Preventive Medicine and Immunization, J. H. Goodnough 523
  - Infant and Maternal Mortality, A. B. Tonkin 524
- List of Members, Wyoming State Medical Society 528

Hospital Section
- Editorial, Hospitalization Through Periodic Payment ..... Twelve
- Original Article
  - Specialties in the Basic Course, Frieda Off ..... Twelve

Immateria Medica ..... Thirty-two
Index to Advertisers ..... Thirty-eight

THE N. ... OF MEDICIN...
DEC 3 1932
...BRARY

3-DAY
DIAGNOSTIC CLINICS
Sponsored by the
COLORADO STATE MEDICAL SOCIETY
at
DENVER
JANUARY 18, 19, 20, 1933
(Wednesday, Thursday, Friday)

A three-day clinic series (diagnostic and therapeutic only) featuring practical information and modern work for the general practitioner.

Using the facilities of the Denver General, Children's, National Jewish, and Colorado General Hospitals.

Directed by a special committee of the Colorado State Medical Society which was created by the House of Delegates for this purpose.

Registration fee, $2.00. All regular Doctors of Medicine invited, regardless of membership in the Society. Complimentary buffet luncheons served each day by the hospitals.

PREPARE TO ATTEND
FULL DETAILS AND PROGRAM LATER



BRAND NEW

A Bridge Table That Sruffles and Deals!

THIS is the table being featured in the news-reels, and now on display in Denver for the first time. See it demonstrated and you will say that it is the most startling and thrilling invention in the history of this popular game.

What a sensation for your next card party. How surprised and pleased your guests will be to play at a table that mixes the deck and deals 13 cards to each player!

The table itself is strikingly attractive with masonite padded Fabrikoid top and hardware in statuary bronze finish. Plugs into any electric outlet.

An ideal Christmas gift. We will be glad to arrange for Christmas eve delivery and bill you on convenient monthly installments if you wish.

Cash Price **$25** Complete

Public Service Company of Colorado

To the Medical Profession of Denver, Colorado

WE ARE deeply appreciative of the interest and co-operation you have evidenced in the many suggestions we have received from you which have materially aided us to bring to the consumer the highest possible quality milk as well as the standard milk products.

The management and all of our employees join in wishing you a Merry Christmas and a Happy New Year.



CARLSON-FRINK CO.

1230 Thirteenth St.

MAin 0111

Doctor—
Here's a world of out-of-the-ordinary Christmas gifts. You'll like them particularly for your especial friends! Up-to-the-moment desk sets, useful leather goods, fascinating biographies, and—but Doctor, it's obviously impossible to mention all of the 10,057 varieties. You must come in and see them today—or tomorrow









Cheerfully yours
Kendrick-Bellamy
16th at Stout
Denver

Had Your Photograph Taken Lately?

OR ARE YOU "LENS SHY"?

——and yet you know your friends want your photograph!

You'll feel comfortable in our studio and be interested in our way of doing things—We'll chase away that lens shyness.

Yvonne Rollandet Studio

1452 TREMONT ST.
DENVER, COLORADO

Have That Photograph Made for Christmas

Open all day Saturday and on Sunday from 11:00 to 3:00

CALL KEystone 6307 FOR APPOINTMENT



"TIME or Tides Wait for No Man"

But you can make TIME work for you with the new Gruen Professional Watch.

GRUEN QUADRON—
For the Doctor.....15 Jewels.....**$52.50**

GRUEN CARTOUCHE—
For the Nurse.....17 Jewels..... **40.00**

Also Tavannes, Hamilton and Elgin Watches

DIAMOND GIFTS OF DISTINCTION

Paul Troll Watch Making | CLOCKS SILVERWARE | Bead Restringing

JOS. GOALSTONE

W. E. Le Faivre, Jr., Mgr.

Jeweler Est. 1899

SIXTEENTH AT TREMONT

FORMER LOCATION CHAS. DOERSAM JEWELRY CO.

GORSLINE-FINCH SPORTING GOODS CO.

Phone KEystone 5728 Denver 220 Sixteenth Street

When You Think Golf Clubs, Think "MacGregor"

You don't have to guess about quality when you buy "MacGregor" Golf Clubs. Quality and style are both built into the clubs.

The 1933 Models are now on display and may be bought in either complete sets or single clubs.

Tru-Flex wood clubs, $15.00 each; $45.00 for set of three; Tru-Flex irons, $12.00 each; $96.00 for set of eight; Paragon wood clubs, $13.50 each; $40.50 for set of three; Paragon irons, $10.00 each; $80.00 for set of eight; Lady MacGregor wood clubs, $10.00 each; $30.00 for set of three; Lady MacGregor irons, $6.50 each; $52.00 for set of eight; Perfection wood clubs, $8.00 each; $24.00 for set of three; Perfection irons, $7.00 each; $56.00 for set of eight; Model 54 wood clubs, $7.00 each; $21.00 for set of three; Model M-8 wood clubs, $6.50 each; $19.50 for set of three; Model M-8 irons, $5.00 each; $40.00 for set of eight Fav-Rit wood clubs, $5.00 each; $15.00 for set of three; Fav-Rit irons, $3.75 each, $30.00 for set of eight.

Many 1932 "MacGregor" golf clubs on sale at reduced prices.

Golf bags are lower in price than they have been since 1912. Following are some bargains in leather bags:

No. 215 Black or Brown, 5 inches, Zipper Ball Pocket, $8.35 each, our price, $5.00.

No. 216 Black or Brown, 6 inches, Zipper Hood and Zipper Ball Pocket, $11.65 each, our price, $6.30.

No. 227 Black or Brown, 7 inches, Zipper Hood, Zipper Ball Pocket and Shoe Pocket, $14.10 each, our price, $7.95.

No. 4137, Pearl with Brown or Black Trim, 7 inches, Zipper Hood and two Zipper pockets, $25.00 each, our price, $12.50.

For the Fisherman—
No. 3 Leather Bound Creels, $1.71 each.
Tapered Silk Fishing Lines, Automatic Fishing Reels, Fly Books, Split Bamboo Fishing Rods, etc., at greatly reduced prices.

Tennis Rackets from $1.98 to $12.00 each.
Ping Pong sets from 25c to $5.00 each.
Skis from $1.25 to $14.00 per pair.

Let us know what you want to see and we will bring it to your office.



We Prescribe for Gift Problems

With as complete a display of gifts as you could wish for!

A Prescription Blank Case

▼ can be embossed with name and address.

Leather Cases

▼ for bills, keys, clippers, cups, collars, travel accessories and cigarettes (embossed if you wish).

Desk Sets

▼ as complete as they are decorative.

Fountain Pens

▼ and pencils, the favorite models of best makers.

Stationery

▼ correctly engraved.

Ash trays, book ends, lamps.

Ask our representative to call with our display of Personal Christmas Cards. Prices $2.50 for 25 and upward.

MAin 5161

Kistler's

PARKE-DAVIS & CO

ESTABLISHED MDCCCLXVI

MINIMS
INSTEAD OF TEASPOONFULS

◆

PARKE-DAVIS

HALIVER OIL

WITH VIOSTEROL-250 D

ACCEPTED

for N. N. R. by Council on Pharmacy and Chemistry of the A. M. A. See *Journal of the American Medical Association* for September 17, 1932, page 996.

◆

Supplied in 5-cc. and 50-cc. vials with dropper; also in 3-minim capsules, boxes of 25 and 100. If you want to make sure of having the Parke-Davis product supplied on your orders or prescriptions it is important to specify "Parke-Davis."

◆

May we send you a sample box of capsules, with descriptive literature? A postcard will bring it to you by return mail. Address Medical Service Dept., Parke, Davis & Co., Detroit, Mich.

THE WORLD'S LARGEST MAKERS OF
PHARMACEUTICAL & BIOLOGICAL PRODUCTS

The.Fish's..Name...Is....HALIBUT

On account of long experience in the cod liver oil field, Mead Johnson & Company happily is able to offer without delay — now — to the medical profession, a superior grade of *undiluted* halibut liver oil containing viosterol, distinguished by the following exclusive features:

(1) Golden yellow color, not dark brown; (2) lowest acidity — 0.7%; (3) highest potency — 100,000 U. S. P. vitamin A units and 3,333 Steenbock vitamin D units; (4) undiluted — no vegetable oil or other diluent; (5) one-fifth of the vitamin D in this product is supplied by the *undiluted* halibut liver oil.

MEAD'S VIOSTEROL IN HALIBUT LIVER OIL 250 D is for sale at drug stores in 5 c.c. and 50 c.c. brown bottles in light-proof cartons to prevent the vitamin-deteriorating action of light. The unique combination dropper-and-stopper prevents waste and minimizes contamination in use. No dosage directions accompany the package. Samples to physicians on request.

DOSAGE TO PHYSICIANS: *This is the same as with Mead's Viosterol in Oil 250 D: Infants, 10 drops daily; prematures and rapidly-growing children, 15 drops; older children, 10 to 20 drops; adults, especially pregnant and nursing mothers, 25 drops or more. Special cases may require larger dosage.*

MEAD JOHNSON & CO., Evansville, Ind., *Pioneers in Vitamin Research*

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons

TOWN TALK

BREAD

▼

Meets U. S. Government Standard for Milk Bread

▼

Full Whole Milk, the Only Liquid Used

Pure Creamery Butter, the Only Shortening Used

A Full Glass of Milk in Every Loaf!

▼

THE OLD HOMESTEAD BREAD CO.

WANTED

men who would like to retire at 65

ON $200 A MONTH

ARE YOU UNDER 55 AND MALE? If so, this advertisement is addressed to you. We assume, of course, that you are not engaged in any hazardous occupation and that you health is good.

THE PROVIDENT PROVIDOR

Under the terms of this simple investment plan you can arrange for a monthly retirement income that will be adequate for your needs. It may be $200. It may be $50, $500, or more. But whatever the amount, you will be interested in this modern way of securing for yourself an income that is guaranteed as long as you live.

YOU'RE INSURED IN THE MEANTIME—Your family is also protected during the time that you are saving toward this retirement income. A **Provident Providor** designed to provide an income of $200 a month would pay your family $20,000 in cash in case of your prior death. If death should result from accidental cause, your family would be paid $40,000, or double the face amount of the policy.

SHOULD YOU BECOME TOTALLY DISABLED—The company will arrange to pay all premium deposits for you if you become totally disabled for a prolonged period of time before reaching age 60. Furthermore, you will be entitled to your share of annual dividends. Under certain conditions a monthly income will be paid during disability. Thus, practically every contingency has been thought of.

HOW MUCH DOES IT COST? Convenient annual premium deposits take care of everything. Just how large or how small these deposits are depends, of course, on your present age and the amount of retirement income you will choose.

But remember, the **Provident Providor** should not be thought of as an expense. It's a sound investment—and is backed by an old-line company with over a quarter billion dollars of assets.

Find out today just how small a premium is required to secure for you the income you want. A free booklet will be sent at your request. Just mail the coupon.

Provident Mutual

Life Insurance Company of Philadelphia

Founded 1865

CLIP and MAIL THIS COUPON

GEO. N. QUIGLEY, *General Agent*
Patterson Bldg. Denver, Colo.
Please send particulars of your Provident Providor

My name.....

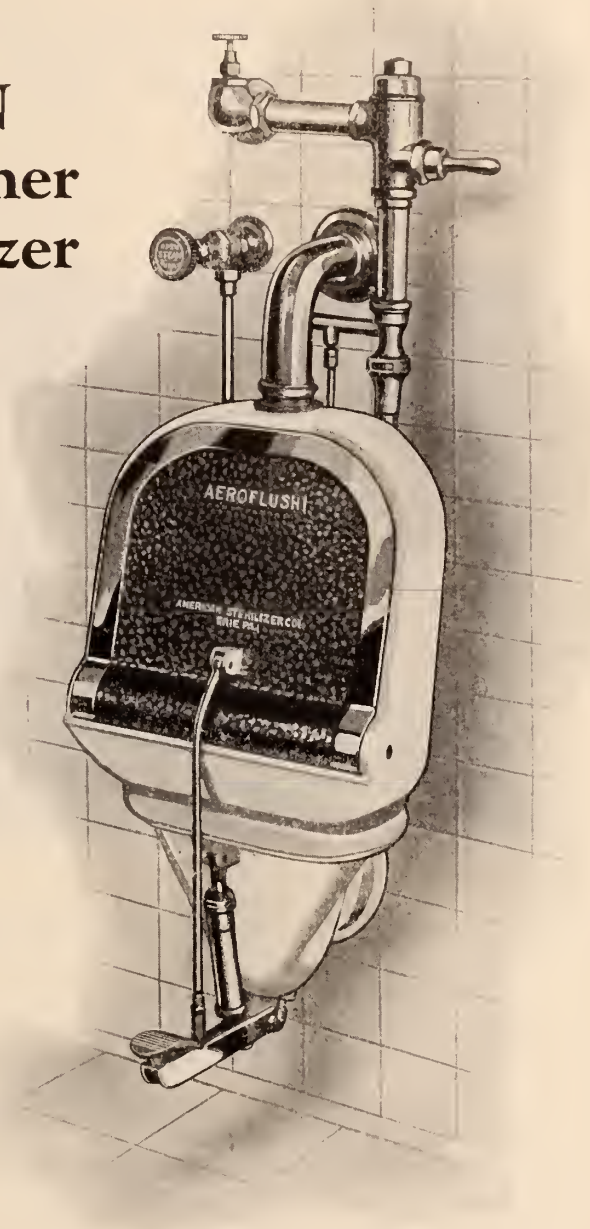
Home Address.....

Business Address.....

I was born.....
Month Day Year

Follow the nurse and see how simply the work is done . . .

the AMERICAN Bedpan Washer *and* Sterilizer



—provides complete sanitary protection and accomplishes the operation in the least possible time, with least effort. Accommodates any size pan, and cannot be operated wrongly.

Washes in 15 to 20 seconds. A live-steam bath of 20 to 30 seconds, following the washing, destroys colon bacilli and other organisms for which bedpan sterilization is required.

May we send you the American bulletin on this subject?

Hospital Department

THE DENVER FIRE CLAY COMPANY

DENVER DFC COLO. U.S.A.

BRANCHES AT SALT LAKE CITY, EL PASO, AND NEW YORK

ELI LILLY AND COMPANY

Founded 1876

Makers of Medicinal Products for Use
Exclusively Under Medical Direction



Pulvules Sodium Amytal

In anxiety, unrest, and nervous excitability, to remove inhibitions, to facilitate psychotherapy, in surgery prior to inhalation anesthetics, and in obstetrics Pulvules Sodium Amytal (sodium isoamyl ethyl barbiturate), orally, will be found of distinct therapeutic usefulness.

Prompt Attention Given to Physicians' Inquiries

Address Principal Offices and Laboratories, Indianapolis

Colorado Medicine

Title Reg. U. S. Pat. Off.

Owned and Published Monthly by The Colorado State Medical Society

Scientific Editor: Douglas W. Macomber, M.D.
Managing Editor: Harvey T. Sethman

Publication Office: 658 Metropolitan Bldg., Denver

Publication Committee: C. F. Kemper, M.D., *Chairman*, C. S. Bluemel, M.D., W. H. Crisp, M.D.

VOL. 29 NUMBER 12 DECEMBER, 1932

$2.50 PER YEAR
Single Copy 25 Cents

EDITORIAL NOTES AND COMMENT

Liver Therapy

IN LESS than a decade the erstwhile descriptive names, pernicious anemia as introduced by Biermer and primary anemia as introduced by Addison, have lost much of their significance. Accumulating experimental and therapeutic evidence has gone far to establish the fact that the anemia so characterized is no longer to be considered either primary or pernicious. Likewise the appellation anemia to designate a profound systematic disease with its almost inevitable involvement of the gastro-intestinal and central nervous systems is not appropriate as a comprehensive definitive name. These facts are recalled, not as a plea for a change in nomenclature but as an indication of a better general understanding of this important disease. This better understanding, in a very large measure, is the natural result of attempts to explain the effectiveness of liver therapy. To have seen a hopeless and mysterious disease quickly transformed into one singularly amenable to such simple treatments is to have impelled the queries why? and how? Consequently our knowledge has been broadened, our understanding deepened.

Liver therapy grew out of the experimental work of Whipple. It was later brought into standardized clinical use by Minot and Murphy. Soon it was found that a potent and palatable liver fraction could be extracted. Later this extract was further concentrated. Finally it was discovered that it could be rendered water soluble and of sufficient purity to be given intramuscularly and intravenously. Paralleling these advances, liver substitutes possessing anti-anemic properties had been discovered. Sturgis demonstrated the potency of gastric mucosa. Castle and Locke demonstrated the potency of lean meat previously digested in a normal stomach. But neither by process of concentration and purification of liver, nor by substitution for liver in an attempt to find the common denominator of anti-anemic effectivity, has the cause of primary anemia been discovered or its specific rationalized.

Theories have been advanced in abundance. As a sample of these hypotheses, that of Krumbhaar is typical. He suggests that "intestinal noxa, somehow associated with achlorhydria are absorbed by the portal system. This noxa may stimulate the spleen to excessive hemolysis as well as alter its normal relation to the hemopoietic function of the bone marrow." Presumably these noxa directly or indirectly also injure the central nervous system. As plausible and consistent as this and other hypotheses are, they are still hypotheses. The enigma of the cause of pernicious anemia remains unsolved, and the astounding benefits of liver therapy is as yet unexplained. While it is known that liver stimulates the bone marrow resulting in maturation and proliferation of the progenitors of normocytes, pernicious anemia is certainly something more than a state in which stimulation to bone marrow is lacking. This anemia responds promptly and completely when an adequate amount of liver or potent liver extract is given. While it is specific

and curative, so far as making good a known deficiency is concerned, it is as empirical as was quinine for malaria among the Indians of Peru. Fortunately water quenched thirst long before physiologists had the first inkling of the nature of satiety. Fortunately, too, liver is as widely accepted as an anti-anemic specific, though the hows and whys still remain unanswered.

C. F. K.

❧ ❧ ❧

State Society
Postgraduate Instruction

IN times past the Colorado State Medical Society has undertaken to provide postgraduate instruction for its members in one way or another, but never with any sustained program. Since the installation of a full-time secretary, however, many outlying constituent societies have been furnished speakers for their programs, these being generally chosen by the Secretary in rotation from a list of those in the larger centers who have expressed a willingness to make the trips and give lectures. In many instances the local society has specified the subject and often has asked for a particular individual. In the latter case, every effort has been made to comply with the request. The plan has given more than reasonable satisfaction and has served to weld the interest of the members in their organization.

A more ambitious step is the institution of clinics which was authorized by the House of Delegates at the 1932 annual session, following an intensive study by a committee especially appointed for that purpose the year before. Returned questionnaires from the members indicated that the great majority preferred that the clinics be held in the larger cities. The committee therefore recommended, as an initial trial in what, it is hoped, will be a permanent arrangement for annual or semiannual clinics, that there be held this year at least one clinic period, and that it be held in Denver, utilizing as far as feasible the facilities of the Colorado General Hospital.

The House adopted the recommendation and a committee appointed to carry it out has already evolved a plan for three days of diagnostic and therapeutic clinics to be held in Denver, January 18, 19 and 20, 1933, (Wednesday, Thursday and Friday). Three other hospitals have consented to cooperate with the Society—the National Jewish Hospital for Consumptives, the Denver General Hospital and Children's Hospital. Subjects already agreed upon include Fractures, Obstetrics and Gynecology, Genito-urinary diseases, General Medicine, General Surgery, Tuberculosis (pulmonary and other), Orthopedics, and Pediatrics; the various other specialties being brought in incidentally.

Other hospitals in Denver will be invited to post at the clinic headquarters each morning a list of operations or clinical cases which could be witnessed by visiting doctors. All licensed Doctors of Medicine in the state will be welcome, regardless of membership in the Society. A registration fee of $2.00 for the entire clinics is to be charged. Complimentary luncheons will be furnished daily by the hospitals.

It is not improbable that another clinic will be held elsewhere this year, if the first proves a success.

Postgraduate instruction would seem to be one very important function which organized medicine can and should exercise. It is hoped that these two undertakings may be elaborated upon later on and a more extended and complete system for postgraduate education be evolved.

F. B. S.

❧ ❧ ❧

Facilities for
Cancer Control

THE PREVAILING activities for cancer control in the United States should be mentioned, in view of the fact that ultimate control of the malady lies in its early recognition, and therefore depends upon health education of the layman.

The government has its part in the work. The United States Public Health Service has established cancer research laboratories in Washington and in connection with the medical school at Harvard. The new building which will house the National Institute of Health will undoubtedly be the center of their activity. The Public Health Service

gives correct information to the press regarding cancer and many other diseases. The Veterans' Bureau has established a cancer clinic in the general hospital at Hines, near Chicago. This institution has a full-time personnel, consultants from Chicago, deep x-ray therapy machines, radium emanation plant, and radium salts in needles and plaques.

An important contribution toward public education is Circular 25, by Surgeon General Ireland, to the army officers, men, and families. It advocates annual physical examinations of all, and pelvic examinations of mothers. A similar circular has gone forth from the medical department of the navy.

Massachusetts has established a cancer clinic similar to that at Hines, described above. The New York Institute for the Study and Treatment of Cancer at Buffalo ranks among the first in state research activities. It ranks foremost in tissue diagnosis and as a center for radium and x-ray therapy.

This country probably has more cancer hospitals and clinics than any other. Through the American College of Surgeons, new clinics in connection with general hospitals are being established. State cancer commissions, committees, and control centers are coming more into prominence.

Misuse of the Term "Drug"

A COMMUNICATION is at hand from one of the leading pharmaceutical houses requesting our aid in the correction of the indiscriminate use of the word "drug" where "narcotic" or "dope" is meant. Such terminology tends to reflect on an honorable business and profession, degrading it in the minds of many lay readers. The National Food and Drugs Act defines a drug as an article used for the purpose of curing, mitigating, or preventing disease.

The pharmaceutical profession and the drug trade are not opposed to the publication of the misdeeds of dope peddlers or addicts, but resent reference to them as "drug peddlers" or "drug addicts." They request that everyone having to do with publications or talks wherein such confusion might misrepresent the profession shall assist in bringing about discontinuance of the abuse.

Encourage Use of Pasteurized Milk

IT IS AGREED that a quart or more of milk should be consumed daily by every normal child. History of public health holds many epidemics caused by germs of disease spread through this avenue. Estimates in recent years indicate some fifty milk-borne epidemics annually in the United States.

Pasteurization of milk has increased consistently during the past decade. About thirty cities require the passage of their entire supply through this process; half again as many require it except upon certified milk. Thus an average of about half our city milk is pasteurized. Of the fifty epidemics annually, not over one has been due to pasteurized milk. In the few instances, practically without exception, the source of infection has been proved contamination after the process.

In addition to the added bacteriological safety, pasteurized milk remains sweet several hours longer at a given temperature; it also forms smaller curds during the process of digestion.

Economics Discussed by Secretaries and Editors

THE EDITOR and the Executive Secretary have just returned from the Annual Conference of Constituent Society Secretaries and Journal Editors held in Chicago by the American Medical Association, too late for inclusion of details of the meeting in this issue of Colorado Medicine.

The entire program was devoted to papers and discussions on contract practice and attendant problems of medical economics. The American Medical Association Bulletin and these pages will in the next few months carry reports of the meeting which should be read and seriously considered by every member. Watch for them.

Diagnostic Clinics January 18, 19 and 20. See announcement front cover.

THE CAUSES OF CHANGED MORTALITY RATES*

JOHN B. CROUCH, M.D.
COLORADO SPRINGS

Nothing better illustrates the progress of modern medicine than a study of mortality tables. Mortalities not only show the progress of medicine but also point out the failures and indicate the fields in which future efforts of preventive and curative medicine should be directed. Statistics are supposed to be "dry," and it has been said that from statistics anything may be proved; nevertheless, every physician should have some idea of mortality and vital statistics. In 1900 the total death rate from all causes was 1755 per 100,000 population. In 1930 the rate had dropped to 1133.1—a drop of 35.5 per cent. If the same rate had continued in 1930 as was present in 1900, three-fourths of a million more deaths would have occurred. Viewing this from another angle, of the total population where three died in 1900 only two died in 1930.

It is to be noted from the chart that certain diseases have diminished rates, while others are increased. In every instance the diseases which have decreased are infectious. In every instance except one, pneumonia, these are ailments of childhood, youth, and early adult life. This is true of other diseases not noted on the chart—measles, whooping cough, scarlet fever, erysipelas, and malaria all show decreased rates. All diseases with higher rates are those of middle life or past. They are not infectious. They are the so-called degenerative diseases—heart disease, cancer, cerebral apoplexy, and nephritis. It may be said, therefore, that our sanitary measures, our vaccines, anti-toxins, and proved specifics for infections are in a large measure effective but that as yet there are no means to curb the ravages of decay. This increased incidence of degenerative disease is, however, more apparent than real because as the young are saved from infections, the average age of the total population increases and many who would have died early in life live only to die of diseases that afflict the aged. There was also formerly a rather large group of deaths listed as due to unknown causes, most of which now fall under one of the degenerative headings.

In 1900 the seven leading causes of death in their order were all forms of tuberculosis;

*Read before the sixty-second Annual Meeting of the Colorado State Medical Society at Estes Park, Sept. 8, 1932.

DEATH RATE PER 100,000 POPULATION

Cause of Death	1900	1905	1910	1915	1920	1925	1930		
ALL CAUSES	1755.0	1602.0	1495.8	1355.1	1306.0	1180.0	1133.1	35.5%	Decrease
1 Tuberculosis, All forms	201.9 11.5%	192.3	160.3	146.4	114.2	86.7	71.5 6.3%	64 %	Decrease
2 Pneumonia, All Forms	180.5 10.3%	148.8	147.7	133.1	137.3	93.7	83.2 7.3%	57.9%	Decrease
3 Organic Diseases of the Heart	111.2 6.3%	132.5	141.5	147.1	141.9	186.5	213.5 18.9%	92 %	Increase
4 Diarrhea, Enteritis Under 2 Years	108.8 6.2%	97	100.8	59.8	44	31.5	19.6 1.7%	82 %	Decrease
5 Nephritis	89 5.1%	103.4	99	105.1	89.4	96.5	90.8 8.01%	2 %	Increase
6 Cerebral Hemorr. Embol. Throm. Sofn.	67.5 3.9%	71.6	737	79.6	81.9		84.9 7.5%	25.8%	Increase
7 Cancer All Forms	63 3.6%	71.4	76.2	81.4	83.4	92.8	97.2 8.6%	54.3%	Increase
8 Accidental					78.5		80.6 7.1%		
9 Typhoid Fever	39.9 2.3%	27.8	23.5	12.4	7.8	8	4.8 .4%	88 %	Decrease
10 Diphtheria and Croup	43.3 2.5%	23.6	21.4	15.7	15.3	7.8	4.9 .4%	89 %	Decrease

DEATHS FROM LEADING CAUSES. U. S. REGISTRATION AREA, 1929

Age, M. & F.	All Causes	Heart Disease	Cancer	Pneumonia	Nephritis	Cerebral Hem.	Accidents	Tuberculosis
All Ages	1,386,363	245,244	111,569	106,597	106,056	100,061	94,033	88,352
Under 10	231,012	2,774	603	32,830	1,188	370	13,329	4,600
10 - 19	51,393	4,125	630	3,541	1,291	271	10,280	8,144
20 - 29	88,875	5,516	1,532	5,794	2,490	685	13,192	23,650
30 - 39	102,622	8,791	5,392	8,251	5,187	2,070	11,341	17,941
40 - 49	135,950	20,853	14,344	10,125	10,209	7,052	11,527	13,987
50 - 59	176,006	36,630	24,494	10,640	17,022	15,333	10,450	9,888
60 - 69	224,027	57,856	31,084	12,553	24,619	25,681	9,113	6,579
70 - 79	230,811	66,738	24,679	13,207	27,912	30,881	8,124	3,524
80 - 89	123,723	35,687	8,023	8,220	14,217	15,797	5,383	708
Over 89	19,660	4,988	677	1,353	1,741	1,801	997	52
Unknown	2,284	286	111	127	180	119	297	179

all forms of pneumonia; organic diseases of the heart; diarrhea and enteritis under two years; nephritis; cerebral hemorrhage, embolism, and softening; all forms of cancer. In 1930 the order was organic disease of the heart; all forms of cancer; nephritis; cerebral hemorrhage, embolism, thrombosis, and softening; all forms of pneumonia; accidental deaths, and tuberculosis. In 1900, tuberculosis was the leading cause of death. Furthermore, tuberculosis had occupied this position for many years. Even the most optimistic would hardly have dared to predict a decrease of 64 per cent in the rate—from 201.9 in 1900 to 71.5 in 1930 and that instead of causing one death in every eight it would cause one death in every sixteen and would have become the seventh cause of death. This remarkable decrease in the tuberculosis death rate has been brought about without a specific cure for the disease so that sanitation, better economic conditions with improved living standards, and less dependency have had more to do with this decrease than any advances in therapy. It is true that the diagnosis is made earlier and more accurately than formerly, and there have been advances in treatment, but these cannot account for the decided drop. The fight is far from won in the battle against tuberculosis. The highest death rate occurs in the third decade at which time it causes one-fourth of all deaths and is four times as fatal as either pneumonia or heart disease, and it is also the decade in which one-fourth of all tuberculosis deaths occur. In the ages of fifteen to forty-five years, tuberculosis is still the leading cause of death. It is the enemy of youth and early adult life. Colorado Springs in 1906 showed a death rate from tuberculosis of 707.9; in 1907 Denver showed 486.6; and in 1910 the state of Colorado showed 291.5. In 1930 this had dropped to 117.5 for the entire state. Arizona in 1930 showed a rate of 334.9 from tuberculosis alone, which well illustrates the value of advertising.

Heart disease was the leading cause of death in 1930, with a death rate even higher than that of tuberculosis in 1900, causing more than a quarter million deaths. Heart disease has almost doubled in the last thirty years, showing an increase of 92 per cent. Only one death in sixteen was due to this disease in 1900; it now causes almost one death in five. Contrary to the general belief, not all types of heart disease have increased. There are two distinct types of heart disease—one an infection, pericarditis and endocarditis, usually a disease of the young; the other is an arterial disease due to changes in the coronary vessels—angina pectoris, coronary thrombosis and embolism, and myocarditis (a misnomer). The latter are diseases of the aged. The latter types show marked increase and account for the apparent total increase of heart disease. Pericarditis and endocarditis have not increased; in fact they actually show some decrease in thirty years. Infectious and degenerative heart diseases have nothing more in common than meningitis and apoplexy, yet they are often grouped under one heading, organic heart disease.

What has been said of heart disease may also apply to nephritis. Acute nephritis is usually not primary. It is a true infection and shows no increase; but chronic nephritis, usually associated with vascular changes, has increased. Likewise cerebral hemor-

rhage, embolism, and thrombosis all show marked increase and are due entirely to vascular changes incidental to age. The greatest number of deaths from all degenerative diseases occurs in the eighth decade of life.

The rate for pneumonia varies considerably from year to year. From 1900 to 1930 there was a decided decrease; 1900, however, showed an unusually high rate, and 1930 an unusually low one. Little medical progress has been made in the treatment of pneumonia and we have no assurance that there will be no recurrence of another pandemic of influenza and pneumonia similar to 1918 when the combined rate from these two causes rose to 587 per 100,000, causing almost one death in three in that year.

Diarrhea and enteritis under two years of age, formerly cholera infantum, summer complaint, colitis, gastroenteritis, all bearing other more or less familiar terms, came fourth in the causes of death in 1900. The rate shows a decrease of 82 per cent. Thousands of babies are annually saved from this cause alone. It was formerly said if a child lived through the second summer it was safe. In other words, the most dangerous period in a child's life was the summer after being weaned. Now it is almost as safe for a child in the summer as in the winter.

Cancer, the seventh cause of death in 1900, was the second in 1930. Probably no disease except tuberculosis has been subject to more experimentation and research in the last thirty years than cancer, yet the rate continues to increase despite all efforts of prevention and cure. In 1930 cancer caused more than 115,000 deaths. It is a disease of middle life or past; so far as we know, it is not closely associated with vascular changes, nor has it been proved to be an infection. Cancer, however, is classed as a degenerative disease.

Typhoid fever and diphtheria are listed on this chart to show what has been accomplished. One in a disease that is preventable, and the other in a disease both preventable and curable. In 1900, typhoid was still one of the leading causes of death. Sanitary measures and typhoid vaccine have been the methods of control. It is to be noted, too, that following the World War there has been a very marked drop in typhoid fever. The freedom from typhoid fever in the army has brought the efficacy of sanitation and typhoid vaccine more forcibly to the attention of the public.

Diphtheria caused even more deaths than typhoid at the beginning of the century. At present the rates are almost identical. The marked drop in the diphtheria rate is due to antitoxin, and later to the development of toxin-antitoxin in prevention. Typhoid fever caused 5,698 and diphtheria 5,822 deaths in 1930; so there is still room for improvement.

In conclusion it can be said that mortality tables show that as the infectious diseases which afflict the young are either cured or prevented, the degenerative diseases, the inevitable result of wear and tear, are bound to increase. This increase of senile deaths does not indicate failure of medical progress; it is an evidence of success, the same as the control of infectious disease.

That a vitamin has been manufactured in the laboratory by strictly chemical methods for the first time, Drs. Charles E. Bills and Francis G. McDonald, of the Mead Johnson and Co. Research Laboratories, Evansville, Indiana, reported. They synthesized Vitamin D, the so-called sunshine vitamin, by treating ergosterol with nitrogen monoxide gas and obtained the potent vitamin without the use of ultraviolet radiation. At present vitamin D is made by shining ultraviolet light on ergosterol, whereas before the relationship between vitamin D and sunshine was discovered five years ago, children had to take Cod Liver Oil to obtain vitamin D that prevents rickets. The synthesis of the vitamin is carried out in solution with methyl alcohol, ether and ethyl acetate at low temperature and with rigid exclusion of oxygen. An extremely pure non-crystalline preparation of vitamin D was described by Drs. Bills and McDonald. In company with four European Laboratories, they have also produced crystalline vitamin D.

THE VOICE IN HEALTH AND DISEASE*

HARVEY S. RUSK, M.D.
PUEBLO

The voice has always had an important place in human society. It is one of our characteristics that persist through the ages, and the uses for it seem to grow. In primitive people the voice is for their simple purposes in life, and if one listens to them speak it seems that their sounds merely express a feeling. We also do that at times, giving vent to certain sounds that have no recognized form. Thus it was that languages were born.

The voice is used by us for two purposes, communication of thought and the expression of feeling. In speech there must be a common vocabulary or language. It is a motor function initiated by thought, but language may be used for thought only, for we think in words, not just in ideas. Speech like the eye conveys much more than just the purpose for which it is used. It is a window to the personality. Speech is also characteristic of the sex, and of the physical size, strength, and skill of the owner. When it does not run true to form, it is the variation that produces an abnormal voice. Voices like shoes cannot be standardized and made to fit everybody. An abnormal voice is a handicap to the development of personality and to the enjoyment of life, but often it may be suitably cultivated. Frequently the voice is dependent on some irregular physical condition which must be trained and changed. And, also, voices must suit the use for which their owners have need. Thus a preacher should have a pleasant carrying voice. A lawyer must have a firm convincing voice. A teacher, a business man, a doctor, et cetera, all have special need for certain voices. Some carry dignity and deliberation, and others are so commonplace that no one remembers what is said. There are as many varieties as there are users, and each may be recognized by a friend. It would be interesting to analyze our own voices, but that we cannot do. The speaker being so accustomed to hearing his voice, is unable to recognize his own abnormalities.

Then there is defective speech, broadly divided into pseudolalia, or false speech, and dyslalia, speech hesitation. Pseudolalia is often called baby talk, cute when small, but a handicap in a grownup. It is not a sign of mental deficiency but may occur in very bright youngsters. It usually consists of faulty pronunciation of the friction sounds S, Z, Sh. It is sometimes called lisping, but medically it is sigmatism.

When the S sound is properly made, the tongue lies on the floor of the mouth. The tip is about one-half millimeter posterior to the lower teeth near the gum margin, and very close to the incisors. A shallow trough is formed in the dorsum of the tongue near the tip. The current of air coming from the larynx in vibration is directed toward the space between the two lower central incisors. When properly done, it is soft and not sharp or hissing. When the trough is too deep or the force of the air is too strong, the sound is hissing and disagreeable. It is then called sigmatismus stridulous.

The tongue may be placed between the teeth for the S sound, but producing "Th" instead. This is sigmatismus interdentalis. Examples are "Theemth" for seems, and "Thome" for some.

Certain consonants may be substituted, as when the child says "Fome" for some, and the error is called parasigmatismus.

When the tongue is placed against the upper teeth, the S sound may be produced in ordinary conversation, but in public speaking due to the strong blast of air the wrong sound is noticed and is named sigmatismus adentalis.

Frequently one side of the tongue is higher than the other so that the sound goes out one corner of the mouth, or it may be bilateral and the sound comes from the corners instead of the center. The habit is occasionally contracted from some one in the family. It is known as sigmatismus lateralis.

If the S or Sh sounds escape through the nose a nasal speech results, sigmatismus

*Read before the Pueblo County Medical Society, Sept. 1, 1931.

nasalis, or rhinolalia. One is then said to talk through his nose. But if there is a nasal obstruction so that the resonance is increased, there is a similar nasal tone and the two cannot be separated easily by listening. These types may be demonstrated by talking with the palate kept forward after a little practice and by talking with the tip of the nose pinched. One of the best ways to distinguish whether it is obstructive is to hold the bell of a stethoscope before the nose of the patient while he whispers "Ah." This normally does not come through the nose, while M, N, and Ng do. The location of the obstruction in the nasal chambers is important in nasal resonance[2].

Dyslalia, or speech hesitation, is largely dependent upon the development of speech in the child. Some children take to talking as they do to nursing, and others develop it slowly. This slowness might not be due to mental defectiveness as shown in other things, but to a reluctance to talk. These children avoid talking if possible. They will cross the room or deny themselves rather than ask for something.

There is also the child who is modest, recessive and is self-conscious. Being of this nature, he rarely runs and shouts like other boys. His physical condition is also below par. The voice is soft, and often he develops a hesitation. The parent will not only do the speaking for the child but will attempt to do his thinking also.

Stammering, as now understood, is a "psychomuscular habit of great complexity[3]". It is characterized by inability to produce certain sounds that require marked vibration of the vocal cords in their production. There is a vicious circle in the relation of emotion to the muscular larynx. If the former is increased, the larynx will become spastic, and the clonic spasm of the cords produces emotional fear. Whispering does not require the tension and close approximation of the cords and is more easily performed. Likewise singing, which focuses the attention on rhythm and tone rather than on the muscular larynx, is accomplished. Any improvement must be from one of these angles. Education and emotional training associated with psychomuscular distraction are in one line of treatment, while muscular and respiratory training are in the other. The voice in singing has all the troubles of the speaking voice and some others.

The relation of the size of the larynx to the chest volume is more important in singing than in speaking. Unnatural placing of the voice, associated with misuse of the vocal resonance, are common faults. Singing out of one's natural range constantly overworks the larynx. The main purpose of the larynx is to set up vibrations in the expired air. It is the duty of the tongue, palate, pharynx, teeth, lips and nose to modify these vibrations into speaking and singing. Some of these functional misuses show visibly in the laryngeal mirror.

Treatment of vocal abnormalities consists first of vocal rest, then changing the range or method of voice production or of breathing. The resonance cavities must be in proper condition and may require surgery if sinusitis or obstruction exists. Tonsillectomy, properly performed, rarely changes the character of a voice.

There are numerous local conditions that affect the voice. For example, chronically infected tonsils, a discharging sinus, acute laryngitis, tuberculosis, syphilis, cancer, and heredity may produce abnormality. Vocal nodules do not constitute a disease per se, but are due to improper use of the cords. Polypi often occur in children. Paralysis is common and may be compensated to a great extent. With any patient whose voice is not clear, it is well to determine its duration and if possible to find out the etiology. Hoarseness is not a disease, but is a symptom.

REFERENCES

[1]Poe, D. L.: Sigmatismus. N. Y. Arch Ped. Dec. 1929.

[2]Steen: Vienna, 1929.

[3]Kenyon, E. L.: Peripheral Physical Inhibition of Speech. Arch. Otolaryngology Dec. 1930. Vol. 12, No. 6; 769.

Prepare to take in the Diagnostic Clinics arranged by your Society. See front cover announcement.

PUBLIC HEALTH NOTES

Editor: J. W. AMESSE, M.D.

Cancer on the Increase

While health conditions in general have been extremely favorable during the past two years, the death rate from cancer has been rising sharply. Only fragmentary mortality data for 1931 are as yet available from official sources. Nevertheless, the few reports that have been received strongly suggest that cancer deaths increased last year in the country at large to an extent that has not been heretofore observed in any single year.

One authority claims that part of the increase in incidence of this disease is due to more accurate diagnosis in the past few years. Many more cases are undoubtedly being discovered through laboratory findings, operative procedures, and autopsies which are being made more often now than ever before. What the other causes are is another challenge to modern methods of deciding these questions.—From Statistical Bulletin, Metropolitan Life Insurance Co., July, 1932.

Present Status of Tuberculosis

Tuberculosis increased in alarming proportions in foreign countries during the World War where there was long continued deprivation of the essential elements that make up a normal diet. Also the prevalence of influenza served to activate the disease already existing (whenever there is an increase in the number of acute respiratory diseases there is generally an increase in the deaths from tuberculosis).

We have seen an almost steady annual decline in the tuberculosis rate in this country since 1918. Unemployment has persisted over a long period. This has resulted in hardship to many people; the scale of living has been lowered; over-crowding in living quarters has increased; and food budgets have been cut. Such acute conditions would seem favorable for the development of tuberculosis. These adverse conditions are offset in part by the following conditions: When people have no work they require less food and spend many hours out of doors. They are in fact living in more healthful surroundings than they would be if working in shops and factories. They do not become exhausted from overwork. They probably get more sleep because they have less money for evening dissipation. Famine does not exist; therefore malnutrition to the degree that will invite tuberculosis is not probable. The tubercle bacillus is having a bad year, but it is well to remember that when the enemy is in retreat is the most favorable time to press the attack.

Efficiency in Public Health

Dr. Henry F. Vaughn, Commissioner of Health of Detroit, Michigan, says that in the interest of child health the family physician should become a practitioner of preventive medicine. He should take an interest in seeing that his clients are protected against small-pox, typhoid fever, and diphtheria; and that adequate periodic physical examinations are made.

Detroit has the record of putting on one of the most efficient campaigns against diphtheria of any city in the country. Practically all physicians in this city were enthusiastic about it and gave their whole-hearted support.

The campaign did more to give the general practitioner that "public health point of view" than any undertaking before tried in that part of the country. Some of the accomplishments of the campaign are: It worked toward the elimination of free clinics. (Every doctor who gave his services was paid either by the individual himself or by the City Health Department at a rate agreed upon by the Medical Society). It increased medical care to the 98 per cent of the population supposedly in good health and in normal times able to pay. This would result in decrease of service to the 2 per cent of the population ill at a given time. A similar campaign put on later to detect tuberculosis in children as well as in adults gave the same satisfactory results. Joint direction and supervision of the program by

the medical profession and the Department of Health was realized.

Reduction in needless sickness and a reduction in the cost of medical care through the prevention of disease were points realized by the public. Of advantage to the Health Department was the conservation of public funds. Because of the elimination of preventable disease, public funds could be used elsewhere.—From the Journal of the American Public Health Association, September, 1932.

The Depression an Opportunity—Or—

Mental hygienists encounter two reactions to the depression days:

1. The depression is an opportunity if it becomes sufficiently disrupting to compel men to think as they never have before, to compel them to plan for the rebuilding of our civilization along lines that will take into account man's fundamental physical, mental and spiritual needs.

2. The second reaction is one of consternation, of fear, almost of despair. In this connection there has been evidence of a concentration of attention upon the maiming effects of the economic catastrophe upon those whom it has hit the hardest, namely, the unemployed and their families.

This is a good time to test our remedial and preventive machinery, to re-orient our health, social, and educational movements. The conservative today wants to turn back to the "good old times." The modern sophist is for tearing down the whole structure. The social planner says, "Let's analyze our social organization, conserve what is pertinent and helpful to our needs, and build anew in terms of present day realities."

The individualist says, "Let us not worry about society; let us merely rear well-adjusted, clear thinking, individuals." The philosopher replies, "That is not enough; we must also alter the structure of society and redirect its development so as to make it possible for the individual to function adequately."—From Mental Hygiene Bulletin, September, 1932.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

EDITOR: J. J. WARING, M.D.

A Hand-Book of Ocular Therapeutics. By Sanford R. Gifford, M.A., M.D., F.A.C.S. Professor of Ophthalmology, Northwestern University Medical School, Chicago, Ill.; Attending Ophthalmologist, Passavant Hospital, Wesley Memorial Hospital, Evanston Hospital. Illustrated with 36 engravings. Philadelphia: Lea and Febiger. 1932. 262 pages. Price $3.25.

In memory of his father, Dr. Harold Gifford, the author has prepared and presented to the profession the most complete, and yet the most concise work on ocular therapeutics that has appeared in many years. This book fills a real need, and besides proving very helpful in the treatment of difficult cases, it is extremely interesting. The text is carefully arranged, beautifully presented, and easy to read. It is devoid of unnecessary detail, but omits nothing among the recent developments in treatment that seems to possess merit. Some measures with which Dr. Gifford has had an unusual amount of experience, such as the use of tuberculin, physical therapy, and treatment of corneal diseases are very properly given in a little more detail.

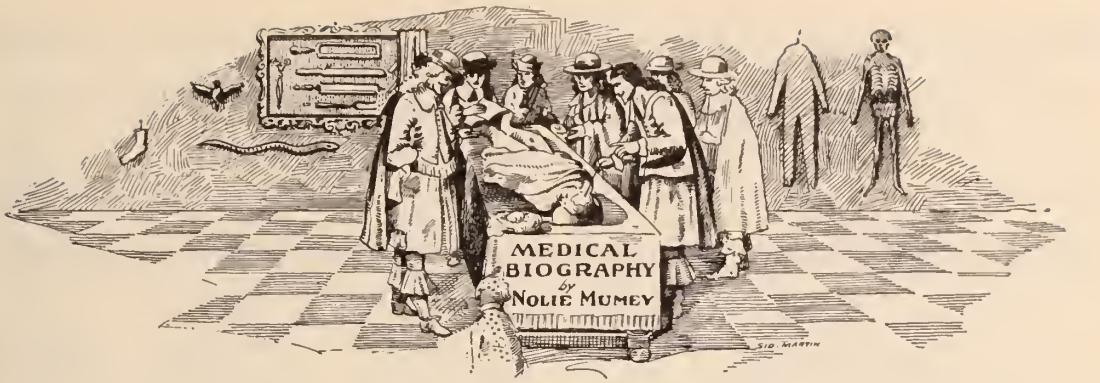
Two lists will be found very useful, one containing the names of drugs and extracts used in ophthalmology with the dosage and indications, and the other containing the names of diseases benefited by physical therapy, with the form of therapy best suited to each. The reader will appreciate the index in this book because it is so complete and so carefully prepared.

WM. M. BANE.

A Non-Surgical Consideration of Prostatic Enlargement. By Edwin W. Hirsch, M.D., Associate in Urology, College of Medicine, University of Illinois; Urologist Englewood Hospital, Chicago, Illinois; Member, American Urological Association, Chicago Urological Association, and American Medical Association. Bruce Publishing Company. 74 pages.

The title of this monograph of seventy-four pages is wrong, as part of the treatise is taken up with bar formation, which is a separate pathological condition. The author dwells at length on the part that infection plays in prostatic enlargement, and would have us believe that prostatic massage is a panacea for all ills. He belittles the work of many urological centers in the research work they have done on this subject. If a second edition appears, which I think is doubtful, the author will have to rewrite his management of both prostatic enlargement and median bar formation after realizing what is being done with transurethral manipulation. This work adds little to the literature on this important subject.

JAMES A. PHILPOTT.



SILAS WEIR MITCHELL

(Continued from November Issue)

The investigation of Dr. Mitchell on the atmospheric effects of the nerves well illustrates his scientific ability. After the Civil War, many of his patients were scattered over the United States. This gave him an opportunity to study the results of weather upon disease. On certain days several letters would arrive from the West, the Middle-West, and the Pacific Coast, from patients suffering from pains in their wounds. On other days communications were received from other sections of the country. These facts led him to make investigations with the meteorological office; he found that a wave of rain and a wave of pain were passing simultaneously over the continent—the pain area being the larger.

This great man never seemed to tire of working, he delved into the most unusual things and put them through the scientific test of experimentation. He was always alert and ready to search for new fields to conquer. His resources, his persistency in searching for the truth, combined with a true scientific spirit help make Dr. Mitchell a great physician.

In token of his high rank as a scientist he had numerous honors conferred upon him; in appreciation of his ability as a physician he was a member of many scientific societies in America and Europe.

Membership in the Following Societies*

Member of the Academy of the Natural Sciences, 1853.

Fellow of the Philadelphia College of Physicians, 1856.

Honorary Member of the British Medical Association, 1860.

Honorary Member of the Boston Medical Society of Natural History, 1861.

Member of the American Philosophical Society, 1862.

Honorary Member of the American Academy of Arts and Sciences, Boston, 1865.

National Academy of Sciences, U. S. A., 1865.

Honorary Member St. Andrew's Graduate Association, Scotland, 1867.

Corresponding Member of the Gynecological Society, Boston, 1870.

Member of the Societe de Medecine de Norvege, 1871.

Honorary Member of the Clinical Society of London, 1874.

Honorary Member of the New York Neurological Society, 1874.

Member of the Academy of Medicine, New York, 1874.

Honorary Member of the State Medical Societies of New York and New Jersey, 1877.

Honorary Member of the London Medical Society, 1877.

Member of the Philadelphia County Medical Society, 1878.

Member of the American Medical Association, 1880.

Member of the Author's Club, 1885.

Member of the American Academy of Medicine, 1885.

Honorary Associate of the Royal Academy of Rome, 1888.

Honorary Member of the Clinical Society of London, 1889.

Honorary Fellow of the American Electro-Therapeutic Association, 1891.

Member of the Athenaeum Club, London, 1892.

Foreign Fellow of the Royal Society. 1908.

Corresponding Member of the German Neurologists' Association, 1909.

Honorary Foreign Fellow of the Royal Society of Literature, 1909.

Honorary Member of the Association of American Physicians, 1912.

*Dates indicate the years of election of appointments.

President of the Following Organizations

Pathological Society, 1869.

American Neurological Association, 1875.

Association of American Physicians, 1880.

Philadelphia Neurological Society, 1884.

College of Physicians, 1886.

American Association of Physicians and Pathologists, 1886.

College of Physicians, 1887.

College of Physicians, 1888.

American Physicians and Surgeons, 1889.

Congress of American Physicians and Surgeons, 1891.

(To be Continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

SIXTY-SECOND ANNUAL SESSION COLORADO STATE MEDICAL SOCIETY

Estes Park, September 8, 9, 10, 1932

PROCEEDINGS OF THE HOUSE OF DELEGATES*

MINUTES IN DETAIL†

First Meeting of the House of Delegates 8:30 p. m., September 7, 1932

President Delehanty: "Will the House of Delegates please come to order?

"I will call upon the Executive Secretary to read the Official Call of this meeting."

The Executive Secretary then read the official call.

"I will call upon Dr. James Shields to act as Sergeant-at-Arms and allow no one except members of the Society at this meeting.

"I will call upon Dr. Lorenz W. Frank to read the report of the Committee on Credentials."

Dr. Frank read the report of the Committee on Credentials, as follows:

REPORT OF THE COMMITTEE ON CREDENTIALS

To the House of Delegates of the Colorado State Medical Society:

Your Committee on Credentials reports that the Constitutent Societies are entitled to representation in the House of Delegates at the Sixty-second Annual Session as follows, under the provisions of Chapter V of the By-Laws:

Society—	Membership on Dec. 31, 1931	Number of Delegates
Arapahoe	6	1
Boulder	43	2
Chaffee	8	1
Crowley	5	1
Delta	20	1
Denver	565	23
El Paso	101	5
Fremont	19	1
Garfield	13	1
Huerfano	11	1
Kit Carson	6	1
Lake	5	1
Larimer	35	2
Las Animas	20	1
Mesa	19	1
Montrose	6	1
Morgan	13	1
Northeast Colorado	23	1
Northwestern Colorado	14	1
Otero	31	2
Prowers	18	1
Pueblo	71	3
San Juan	20	1
San Luis Valley	20	1
Weld	45	2
Total members on Dec. 31, 1931	1,137	Total Delegates 57

The following list of delegates and alternates is presented as the original roll call of this House, these delegates and alternates being those duly elected by their respective constitutent societies and properly certified to your Committee on Credentials:

Society	*Delegates*	*Alternates*
Arapahoe	W. C. Crysler	H. B. Catron
Boulder	H. H. Heuston	H. R. Dietmeier
"	C. W. Bixler	C. D. Bonham
Chaffee	J. P. McDonough	C. R. Fuller
Crowley	J. A. Hipp	G. M. Baker
Delta	A. C. McClanahan	L. A. Hick
Denver	Wm. H. Halley	Frank E. Rogers
"	G. M. Blickensderfer	I. D. Bronfin
"	K.D.A.Allen	Virginia C. Van Meter
"	H. I. Barnard	D. W. Macomber
"	H. R. McKeen	George B. Kent
"	B. B. Jaffa	L. W. Mason
"	G. E. Cheley	Tracy R. Love
"	D. H. O'Rourke	P. W. Whiteley
"	C. A. Conyers	Thad P. Sears
"	W. W. King	Duval Prey
"	Gerrit Heusinkveld	C. J. Lowen
"	W. C. Finnoff	Maurice Katzman
"	James A. Philpott	J. M. Foster, Jr.
"	H. S. Finney	William M. Bane
"	C. F. Kemper	Claude E. Cooper
"	James M. Shields	Earl J. Perkins
"	H. G. Garwood	W. A. Sedwick
"	J. S. Bouslog	J. R. Jaeger
"	E. G. Faber	R. G. Packard
"	C. Howard Darrow	H. W. Snyder
"	W. B. Yegge	Louis V. Sams
"	W. R. Waggener	Virgil E. Sells
"	O. S. Fowler	J. G. Ryan
El Paso	John A. Sevier	F. O. Kettlekamp
"	E. B. Liddle	J. T. Williams
"	W. A. Campbell, Jr.	A. C. Holland
"	Z. H. McClanahan	Carl S. Gydesen
"	D. A. Vanderhoof	M. O. Shivers
Fremont	R. E. Holmes	Royal C. Adkinson
Garfield	R. B. Porter	W. R. Tubbs
Huerfano	W. S. Chapman	Paul A. Lee
Kit Carson	W. L. McBride	H. L. Williams
Lake	F. N. Cochems	A. J. Bender

*An index to the Proceedings of the House of Delegates will be found on page 494.

†Secretary's Note: Formal reports which make up a large part of the minutes of the House of Delegates are printed in advance of the Annual session in the "House of Delegates Handbook" and given to each officer and delegate a week before the meeting. As a result, reports being before the House in printed form, they were not read verbatim but in most cases were received from the Handbook. With this explanation, readers may better understand references to the "Handbook" and to "printed reports" which occasionally appear in the minutes.

Society	*Delegates*	*Alternates*
Larimer	C. H. Platz	William P. Gasser
"	W. B. Hardesty	T. C. Taylor
Las Animas	James G. Espey	B. B. Beshoar
Mesa	G. C. Cary	E. H. Peterson
Montrose	Isaiah Knott	F. G. Didrickson
Morgan	Ira J. Clark	C. F. Eakins
Northeast	W. E. Hays	J. W. Kinzie
Northwestern	Duane Turner	A. C. Sudan
Otero	R. S. Johnston	B. Franklin Blotz
"	Byron B. Blotz	R. M. Fulwider
Prowers	C. T. Knuckey	F. E. Casburn
Pueblo	Harold T. Low	R. H. Kampmeier
"	R. C. Robe	J. S. Norman
"	George M. Myers	George E. Rice
San Juan	A. L. Burnett	B. Frank Walters
San Luis Valley	O. P. Shippey	Sidney Anderson
Weld	W. P. Allen	Burgett Woodcock
"	H. W. Averill	C. A. Ringle

Your Committee is ready to act upon any question of credentials which may arise during this session.

Respectfully submitted,
LORENZ W. FRANK, Chairman,
L. L. HERRIMAN,
GEORGE T. O'BYRNE.

Dr. Frank: "The Executive Secretary has a few amendments to this report, and will call the roll."

Mr. Sethman: "Mr. President, the Chairman of the Credentials Committee has asked me to present a few amendments to this report which have come into the office since the report was drawn.

"Dr. E. C. Webb of Fremont County has been appointed to represent the Fremont County Medical Society due to inability of either the delegate or alternate to be present.

"Dr. George H. Curfman has been appointed to represent the Chaffee County Society, the circumstances being the same there.

"Dr. Lee Bast has been appointed to represent the Delta County Society due to the inability of the delegate to be present, and due to the ineligibility of the alternate to serve since he is already an officer of the State Society."

The Executive Secretary then called the roll from the report of the Committee on Credentials and announced forty-three accredited delegates present. The President announced a quorum. Dr. Frank moved adoption of the amended Committee report; the motion was seconded and carried.

President Delehanty: "We are ready to proceed to regular business. I will have Mr. Sethman read the minutes of the last meeting."

Dr. Bortree: "I move that the minutes of the last meeting be approved as printed in the December, 1931, issue of Colorado Medicine."

The motion was seconded and carried.

The President announced the appointment of Reference Committees for the duration of the session as follows:

Reference Committee on Audits and Appropriations: John S. Bouslog, Denver, Chairman; John A. Sevier, Colorado Springs; R. S. Johnston, La Junta.

Reference Committee on Reports of Officers: James M. Shields, Denver, Chairman; W. B. Yegge, Denver; George E. Rice, Pueblo.

Reference Committee on Reports of Committees: Gerrit Heusinkveld, Denver, Chairman; W. B. Hardesty, Berthoud; George H. Curfman, Salida.

Reference Committee on Miscellaneous Business: Lee Bast, Delta, Chairman; O. P. Shippey, Saguache; B. B. Jaffa, Denver.

Dr. Lorenz W. Frank then presented the report of the Board of Trustees as printed in the Handbook, together with a supplemental report of the minutes of the September first meeting of the Board, as follows:

REPORT OF THE BOARD OF TRUSTEES

To the House of Delegates of the Colorado State Medical Society:

The Board of Trustees has held three meetings since the last Annual Session (at the time this report is written), the meetings being held approximately on a quarterly basis. The Board herewith presents, under the dates of the respective meetings, its more important activities.

October 31, 1931

The Board elected Dr. C. A. Davlin of Alamosa, Councillor for the Fifth District, to fill the unexpired term of Dr. A. J. Nossaman, deceased, said term to expire September 10, 1932.

The Board created a special Committee to be known as the Committee on Veterans' Legislation, and appointed the Committee as follows: J. W. Amesse, Denver, Chairman; L. H. Winemiller, Denver; Louis V. Sams, Denver; E. L. Timmons, Colorado Springs; Crum Epler, Pueblo. This Committee will report at this Annual Session.

The Board expressed approval of a plan suggested by officers of the State Auxiliary for the establishment of a Benevolence Fund by the Auxiliary for giving assistance to aged physicians and their widows.

The Board confirmed Committees appointed for the 1931-1932 term by the President and President-elect.

The Board approved financial reports of the Treasurer and Executive Secretary indicating the condition of the Society at the close of business on October 31, 1931.

March 23, 1931

The Board elected Dr. A. J. Markley of Denver as alternate to the American Medical Association, to fill the unexpired term of Dr. William C. Bane, resigned.

The Board accepted the joint invitation of the Colorado Hospital Association and the Colorado Nurses Association to form a joint Committee to study the problem of surplus of nurses, and appointed our Society's Committee on Cooperation With Allied Professions to represent us in the matter.

The Board approved financial reports of the Treasurer and Executive Secretary for the first half of the fiscal year and voted to invest $500 of cash surplus in Fourth Liberty Loan bonds.

The Board voted to refer to the House of Delegates at the Estes Park Meeting a request of the Virginia Medical Society for a Resolution condemning the present government requirements of training for medical reserve officers.

The Board received complaints concerning the stenographic reporting of recent annual sessions and instructed the Executive Secretary to choose a new reporting company for the Estes Park Meeting.

The Board instructed the Treasurer and Executive Secretary to assist the Committees in charge of the National Tuberculosis Association annual meeting in Colorado Springs, and to loan to the Association such of our x-ray exhibit equipment as the Association might need.

The Board approved the plan of arranging a special Pullman from Denver to New Orleans for the American Medical Association meeting in the name of the Society.

July 6, 1932

Financial reports of the Treasurer and Executive Secretary for the first ten months of the fiscal year were presented and approved. It was the sense of the Board that the finances of the Society were in excellent condition with the exception of slow collections on advertising accounts, due to prevailing business conditions. It was the sense of the Board that general activities of the Society should not be curtailed despite prevailing business conditions, but that the Executive Secretary and disbursing officers should endeavor to keep all expenses at a low level.

The Board instructed the Executive Secretary to prepare tentative amendments to the Constitution and By-Laws for presentation at the Estes Park Meeting, redistricting the State into Council districts of more easily traveled geography than the districts at present constituted.

September 1, 1932

Financial reports of the Treasurer and Executive Secretary, the earnings statement for Colorado Medicine, and the condensed report of the Certified Public Accountant, as published in the Supplement to the House of Delegates Handbook, were considered in detail by items.

On motion the Tentative Budget for the 1932 1933 fiscal year as submitted by the Executive Secretary was approved.

On motion, the financial reports for the 1931-1932 fiscal year submitted by the Executive Secretary were approved.

On motion, reports for the 1931-1932 fiscal year submitted by the Treasurer were approved.

On motion, the Executive Secretary was instructed to draw and present to the House of Delegates on behalf of the Board of Trustees an amendment to the Constitution of the Society to increase the number of Councillors and Councillor Districts from five (5) to nine (9).

Respectfully submitted,

LORENZ W. FRANK, Constitutional Secretary,
For the Board of Trustees.

The report was referred by the President to the Reference Committee on Reports of Officers.

President Delehanty: "Dr. George D. Andrews of Walsenburg is not here to present the report of the Board of Councillors.

"This has been printed in the Handbook and if there is no objection it will be accepted and referred to the Reference Committee on Reports of Officers."

REPORT OF THE BOARD OF COUNCILLORS

To the House of Delegates of the Colorado State Medical Society:

Several matters of considerable importance have been brought to the attention of the Council during the year just closing.

The most important was the complaint against the tonsil clinic conducted in Springfield, Colo., in the autumn of 1931. This matter was finally settled by the Prowers County Medical Society after considerable correspondence with the Councillor for the Third District.

Another was a matter referred to the Council by the State Board of Medical Examiners involving the alleged participation of two Pueblo physicians with cultist-operated institutions. Through the cooperation of the district Councillor, the Pueblo County Medical Society, and the Board of Medical Examiners, the matter was satisfactorily adjusted.

The Pueblo County Medical Society also called upon the Council in regard to unethical advertising on the part of a Pueblo hospital. Investigation disclosed that the advertising was published without the authority of those in charge of the hospital, and the matter was closed.

The Board of Councillors met in Denver August 4, 1932, and issued a letter of warning to the members of the Society concerning the growth of a type of contract practice which might lead to an unethical situation. This letter is probably fresh in the minds of the members of the House of Delegates.

Respectfully submitted,
GEORGE D. ANDREWS, Chairman,
ELLA A. MEAD,
G. P. LINGENFELTER,
W. W. CROOK,
C. A. DAVLIN.

"I will call upon Dr. Frank to present the report of the Constitutional Secretary."

Dr. Frank presented his report as printed in the Handbook, as follows:

REPORT OF THE CONSTITUTIONAL SECRETARY

To the House of Delegates of the Colorado State Medical Society:

During the past year your Constitutional Secretary has again acted largely in an advisory capacity to the Executive Secretary. The chief part of the work has been concerned with his membership on the Board of Trustees, the Committee on Public Policy, and the Committee on Credentials.

As is to be expected, more questions of ethics and minor disputes affecting the various constituent societies have arisen than during the previous year. When these matters could be handled satisfactorily through the Executive Office, such was done whenever possible, rather than to refer them to the Boards of Censors or the Councillors.

As will be seen from the Executive Secretary's report, we have again enjoyed a successful year in spite of increasingly difficult general conditions.

Respectfully submitted,
LORENZ W. FRANK.

The President referred it to the Reference Committee on Reports of Officers.

Mr. Sethman then presented the report of the Executive Secretary, as follows:

REPORT OF THE EXECUTIVE SECRETARY

To the House of Delegates of the Colorado State Medical Society:

Reports accompanying this one so thoroughly reveal the efficient work of the standing and special committees, Board of Trustees and Board of Councillors, that a general review of them by the Executive Secretary is unnecessary. At the risk of repetition, however, he wishes to call attention to notable progress in certain fields, and respectfully to make a number of suggestions for organization improvement.

The Year Past

The Executive Secretary believes that the work of the Committee on Medical Defense has become one of the Society's most important activities. The Committee has a delicate and difficult program of duties, frequently personally embarrassing, yet its work has been outstanding. It is the Committee's duty fearlessly to uphold the physician unjustly sued; it is the Committee's duty to criticize the careless physician with equal fear-

lessness. This it has done, thus serving both the profession and the public in an important and two-fold manner.

At the beginning of the year the profession was threatened with an epidemic of malpractice suits. The underlying causes still exist. The danger is still present. Yet the great work of this Committee has at least for the time being gained control of the situation. It has postponed if not eliminated the threat of increased premium rates for liability insurance. The confidential nature of its work prevents most physicians from knowing more than the mere fact that such a Committee exists. Yet your Executive Secretary is firmly convinced that this Committee has done more for the benefit of the profession than any other board, committee, or group in our Society during the year.

Hardly second in importance is the work of the newest committee, that on Veterans' Legislation. Here, also, results cannot be published or easily visualized, but much real achievement should be credited to the Committee and much may be expected in the near future. Any observer should readily sense the increasing spirit of friendliness and respect for the medical profession that is being instilled into veterans' organizations by this Committee. Your close attention to the Committee's confidential verbal report is urged.

Aside from ably handling its usual mass of routine work and small items, your Committee on Public Policy has accomplished an important result in gaining more than ever before the confidence and cooperation of the Colorado State Board of Medical Examiners. The Executive Secretary wishes respectfully to point out that many members of the Society fail to cooperate with the Board of Medical Examiners as fully as they could and should. The Board and the Society's Public Policy Committee are then criticized for failure to produce results which this very cooperation of individual doctors would have brought about. Increased cooperation from individuals will help both the Board and the Committee and will show in the results obtained toward reducing irregularities of practice. On behalf of both the retiring and the new Public Policy Committees, the Executive Secretary begs the personal aid of every member of the Society throughout the election campaign and the legislative session, that the profession may more successfully meet such situations as the challenge of the notorious chiropractic bill of two years ago.

Aside from these emphasized points, the Executive Secretary refers the House to all other reports presented, for a general picture of the Society's work this past year.

Personally, the Executive Secretary has attended all meetings of the Board of Trustees and the Board of Councillors, thirty-four regular meetings of state committees and sixty informal conferences with committees and officers, and twenty-eight meetings of county medical societies, visiting a majority of the constituent organizations. He supplied speakers to county societies at their request on forty-five occasions. At the direction of the Board of Trustees he attended the annual sessions of the American Medical Association, the Wyoming State Medical Society, the New Mexico Medical Society, and the Conference of State Secretaries and Journal Editors, and assisted local committees in connection with the annual meetings of the National Tuberculosis Association and the Western Branch of the American Public Health Association, both of which met in Colorado this year. He has assisted a considerable number of physicians in finding new locations, a feature of the office work of increasing importance. In general he has endeavored to use his position and his office to give personal assistance to all individual members of the Society whenever called upon. His largest single project in the year was the compiling, editing, and publishing of the Medicolegal Digest, which he trusts has proved of value commensurate with its cost. The above activities have consumed roughly two-thirds of the Executive Secretary's time, his duties in connection with Colorado Medicine consuming about one-third.

Supplements to this report will give details concerning membership, finances, and Colorado Medicine. A brief discussion of the membership and financial situation will be attempted here, although at the time this report is prepared (August 18, 1932), final figures for the fiscal year are not available.

Active membership has decreased about 3 or 4 per cent, but the proportion of our membership to the total number of registered physicians in the State has remained exactly the same. Analysis shows the decrease due primarily to our loss of almost thirty members by death, compared with eleven the preceding year, coupled with the fact that this year there are fewer physicians in the state. A number of our members moved away from the state this year. There has been only a small increase in the number of dues delinquencies. Thus our membership loss is hardly traceable to general financial conditions, a situation which speaks well for increased interest in medical organization in a most trying year.

Since our financial reports are, as customarily, presented on a cash receipts and disbursements basis, there will be an indicated lowering of reserve funds. When the figures are analyzed, however, the Society may be said to have "broken even" for the year. About $1,000 has been invested in the Medicolegal Digest above present advertising receipts, though it should be noted that another $400 will be received from this source to reduce the amount which the Society in the end will have invested in this publication. If the finances of the Medicolegal Digest are separated from the other figures and the increase in accounts receivable for Colorado Medicine are considered in proper proportion to their collectability, the Society is found to have balanced earnings and expenses in a year when most comparable organizations have gone deeply into debt. Colorado Medicine is not carrying as large a volume of advertising as it did a year ago, but it nevertheless is paying its own way and helping support other Society activities. Its failure to meet budget expectations in advertising receipts is due only partially to the decrease in advertising volume and due more largely to slow payments by advertisers within the last six months. Your Executive Secretary is confident that the credit of most of the advertisers is satisfactory and that slow collections are due entirely to the general financial stress. Despite these, so far as we were able to learn at the annual session of the American Medical Association, Colorado Medicine is in better financial condition than any other state medical journal.

The Year Ahead

The Executive Secretary wishes to make a number of recommendations for the coming year, some of which suggest action by this House.

Jointly with the Trustees he recommends consideration of a constitutional amendment to increase the number of Councillor Districts from five to nine. At present, with but five Councillors each representing a huge district, no one of the five can carry out the duties imposed by the By-Laws except at tremendous personal sacrifice. An increase in number, with a rational readjustment of district boundaries, should benefit the organization.

He urges that this House direct all constituent societies to revise their By-laws to conform to the By-Laws of the State Society. Though none have occurred in recent years, misunderstandings and disputes might easily arise from the existing conflicts between by-laws. The Executive Secretary is certain it is easier to prevent than to cure, here as elsewhere.

As was repeatedly urged by your former Secretary, Dr. Frank B. Stephenson, the Executive Secretary appeals to each Delegate to carry home to his constituent society the realization that active officers for each local society are vital to the life of this organization. If the Society is to resist successfully the increasing attacks from the outside it must be welded more closely than it is now. The key men in this organization are the presidents and secretaries of the county societies. They should be men interested in society work from an organization viewpoint. They should be men ready and willing to lead their colleagues in matters of medical economics, mutual protection and organization unity. There are such men in every local society.

The Executive Secretary suggests that this House seriously consider the position of the former Presidents. It seems to him that a man who has served as President of this Society has a knowledge of organization problems and an administrative and executive experience which the Society should utilize. He would respectfully suggest, as one possible means to this end, that a constitutional amendment be considered making all former Presidents automatically members of the House of Delegates as Delegates-at-large from the State Society, their seats not affecting necessarily the representation from the constituent societies in which they hold membership.

The Executive Secretary believes that a very conservative financial policy should be followed for the next twelve months. As the tentative budget indicates, the Society may have to conduct its business with less income than was received in the year just closed. In an effort to anticipate such conditions, he has recommended for those items considered as running expenses appropriations proportionately lower than appropriations made a year ago. Barring unforeseen emergency, he believes expenses can be held within these figures and that the budget is properly balanced. Should emergency arise, the Board of Trustees has authority to meet it out of surplus funds. The budget recommendation for the Committee on Library and Medical Literature was made to agree with the amount previously authorized by the House of Delegates. It will be noted in the report of that Committee that an increase is requested. Although aware that this request would be made, your Executive Secretary felt he had no authority to recommend for or against a change in a standard continuing appropriation already fixed by the House of Delegates. He feels that his duty does not extend beyond giving the House information as to the financial possibilities involved. In his opinion, should the House desire to increase the appropriation for library purposes, it can be done only by curtailment of other established Society activities or by withdrawals from surplus funds.

In brief, the budget as submitted recommends:

Increases in appropriations for taxes and mailing (due to the three-cent postage and an increased assessment against the Society for general taxes);

No changes in the continuing appropriations (salaries, rent, audits and fidelity bonds, library);

Decreases in all other items.

In conclusion, the Executive Secretary extends his personal thanks to the many officers, committeemen, and members who have aided him and his staff throughout the year, and hopes that this House will express appreciation which he believes is due in special measure to those men who have given unstintingly of their time and energy to the end that the Society might close the year with its interests advanced despite the manifold difficulties created by outside influences and general financial conditions.

Respectfully submitted,

HARVEY T. SETHMAN.

SUPPLEMENT TO THE REPORT OF THE EXECUTIVE SECRETARY

Tentative Budget for the Fiscal Year of 1932-1933, as Submitted by the Executive Secretary to the Board of Trustees

RECEIPTS—		
Dues, resident	$10,300	
Dues, non-resident	150	
Space rentals	200	
Interest and securities	450	
Publications	11,000	
TOTAL RECEIPTS		$22,100
DISBURSEMENTS—		
General Fund:		
Salaries	$4,500	
Rent	600	
Telephone & telegraph	300	
Taxes	85	
Insurance	15	
Audits and bonds	180	
Travel	600	
Mailing and supplies	500	
Permanent equipment	70	
Scien. wk. & exhibits	350	
House of Delegates	200	
Guests, entertainment	250	
Total General Fund		7,650
Publication Fund:		
Salaries	$3,420	
Printing & mailing	7,750	
Supplies & promotion	500	
Commissions	1,250	
Total publication fund		$12,920
Medical Defense Fund:		30
Library Fund:		500
Education Fund:		
Salaries	$ 800	
Public Policy Comm.	200	
Total Education Fund		$1,000
TOTAL DISBURSEMENTS		$22,100

SUPPLEMENT TO THE REPORT OF THE EXECUTIVE SECRETARY MEMBERSHIP

Active membership on Aug. 31, 1932:		
Resident paid		1,024
Resident by transfer		1
Non-resident paid		34
		1,059
Deaths of members paid for 1932		8
Active members, Aug. 31		1,051
Active members, Aug. 31, 1931		1,096
Active members, Aug. 31, 1932		1,051
Loss during year		45
Analysis of change in active membership:		
Died		29
Resigned		3
Transferred out of state		19
Elected associate members		10
Suspended for non-payment		36
Expelled		1
Gross losses		98
New members, paid		52
New members, transfer		1
Gross gains		53
Net loss		45
Analysis of associate membership:		
Assoc. members, Aug. 31, 1931		31
Additions by election		10
		41
Deaths		4
Assoc. members, Aug. 31, 1932		37
Analysis of honorary membership:		
Honorary members, Aug. 31, 1931		9
Deaths		2
Honorary members, Aug. 31, 1932		7
Total members all classes, Aug. 31, 1931		1,136
Total members all classes, Aug. 31, 1932		1,095
Loss during year		41

SUPPLEMENT TO THE REPORT OF THE EXECUTIVE SECRETARY

CASH STATEMENT, SEPT. 1, 1931, TO AUG. 31, 1932, INCLUSIVE

RECEIPTS—		
Dues, resident		$10,260.00
Dues, non-resident		170.00
Space rentals		375.00
Interest and securities		994.46
Publications:		
Colo. Medicine	$10,051.81	
Medicolegal Digest	712.43	
		10,764.24
Miscellaneous		32.75
REMITTED TO TREASURER		**$22,596.45**
DISBURSEMENTS—		
General Fund:		
Salaries (Exec. Secy.	$ 3,300.00	
Rent	600.00	
Telephone & telegraph	274.79	
Taxes	34.51	
Insurance	14.00	
Audits and bonds	174.50	
Travel	608.18	
Mailing and supplies	453.83	
Permanent equipment	182.50	
Scien. work and exhibits	848.03	
House of Delegates	234.05	
Guests and entertainment	348.97	
Interest and securities	517.05	
Trans. to revolving fund	100.00	
Refunds	9.00	
Total General Fund		$ 7,699.41
Publication Fund:		
Salaries—		
Exec. Secy.	$ 900.00	
Assistant	1,800.00	
Assistant	1,150.00	
Sc. Ed.	720.00	
Total Sal.	$ 4,570.00	
Printing and mailing	7,748.23	
Supplies and promotion	537.30	
Commissions	1,731.13	
Medicolegal Digest	1,548.95	
Collection expense	151.41	
Total publication fund		$16,287.02
Medical Defense Fund		38.55
Library Fund		508.83
Education Fund:		
Salaries (Exec. Secy.)	$ 800.00	
Public policy committee	93.75	
Total Education Fund		$ 893.75
VOUCHERS ISSUED		**$25,427.56**

SUPPLEMENT TO THE REPORT OF THE EXECUTIVE SECRETARY

Financial Statement for COLORADO MEDICINE, Compared With Previous Year, on Behalf of the Committee on Publication

	1930-1931	1931-1932
Subscriptions	$ 2,577.25	$ 2,491.20
Single copy sales	10.95	19.85
Advertising, paid	12,557.34	9,506.56
Advertising, accounts receivable	2,609.84	3,245.25
Cuts and Misc., paid	389.89	145.20
Cuts and Misc., accounts receivable	6.00	22.97
Total Earnings	$18,151.27	$15,431.03
Disbursements	$15,363.59	$14,738.07
Plus reserve for doubtful accounts	500.00	500.00
	$15,863.59	$15,238.07
Less commissions paid on next year's business	375.85	520.70
	$15,487.74	$14,717.37
Less general Society expense charged to Colorado Medicine	575.00	200.00
Total Expenses	$14,912.74	$14,517.37
Earnings	$18,151.27	$15,431.03
Expenses	14,912.74	14,517.37
Operating profit	$ 3,238.53	$ 913.66

SUPPLEMENT TO THE REPORT OF THE EXECUTIVE SECRETARY CERTIFICATE

The Colorado State Medical Society:

I have made a general audit of the accounts of The Colorado State Medical Society for the year ended August 31, 1932.

The financial records kept by the Executive Secretary and the Treasurer of the Society were found to be correct, and

I HEREBY CERTIFY, that, in my opinion, the accompanying Balance Sheet and Summary of Income, Expenses and Surplus correctly exhibits, respectively, the financial condition of the Society at August 31, 1932, and the results of its operations for the year ended that date.

M. C. CALHOUN,
Certified Public Accountant.

Denver, September 3, 1932.

THE COLORADO STATE MEDICAL SOCIETY

(Incorporated in Colorado)

Balance Sheet, August 31, 1932

Assets

Cash in banks		$ 2,851.00
Investments in bonds (par value) (Market value $7,813.75)		8,000.00
Accounts receivable	$ 6,994.09	
Less reserve for doubtful accounts	500.00	
		$ 6,494.09
Furniture and fixtures	$ 1,770.87	

Less reserve for depreciation	469.51	
		$ 1,301.36
Advances to salesman, commission on September advertising contracts)		55.00
Total		$18,701.45

Liabilities

Unearned portion of advertising contracts	$ 3,251.25
Surplus, per Exhibit "B"	15,450.20
Total	$18,701.45

EXHIBIT "A"

THE COLORADO STATE MEDICAL SOCIETY

Summary of Income, Expenses and Surplus for the Year Ended August 31, 1932

INCOME:		
Dues, interest, etc.		$ 9,208.91
Colorado Medicine		13,426.20
Medicolegal Digest		1,140.00
Total Income		$23,775.11
EXPENSES:		
General	$ 8,516.10	
Colorado Medicine	15,428.89	
Medicolegal Digest	1,837.45	
Total Expenses		$25,782.44
Net loss for the year		$ 2,007.33
Surplus at beginning of year		17,457.53
Surplus at end of year		$15,450.20

EXHIBIT "B"

The President referred the report to the Reference Committee on Reports of Officers with the exception of the financial supplements, which he referred to the Reference Committee on Audits and Appropriations.

Dr. L. W. Bortree then presented the report of the Treasurer, as follows:

REPORT OF THE TREASURER

To the House of Delegates of the Colorado State Medical Society:

Following the custom inaugurated last year, I have condensed my Annual Report to a minimum since Mr. Sethman has reported in extenso concerning the financial affairs of the Society.

In the supplement which has been handed each Delegate will appear the details of all receipts and expenditures. I wish to call attention at this time to certain differences between the budget as drawn one year ago and the figures for the twelve-month period.

Receipts from all sources except Colorado Medicine came almost exactly as budgeted. Here, however, we fell about $3,000.00 short. This is mostly due to poor collections, and the balance is the result of the financial state of the community during the past twelve months. Such error is apparently unavoidable. This loss of revenue is partially offset by the decreased cost of printing and mailing, resulting from the decrease in advertising, the expenditure for printing and mailing being $1,750.00 less than the estimate.

Your Executive Secretary has expended less than the budget estimates for telephone and telegraph, travel, mailing and supplies. The cost of last year's Scientific Session was far over the budget limits, principally owing to the necessity of entirely rebuilding and in part replacing the screens for the x-ray exhibits. The House of Delegates expenses were likewise $34.00 above the estimate. In all, the last Annual Meeting cost the Society approximately $1,425.00, or about $600.00 more than allowed in the budget. The fiscal officers of the Society could not refuse to pay these bills, which developed after the budget was approved. The charge for commissions was higher than the estimate, but is offset by the increase in collectable bills for advertising. The expenditures for Public Policy were $300.00 less than the budgetary allowance.

In general, the Treasurer feels that the financial status of the Society is fairly satisfactory considering the economic state of the country at large for the past year.

For the coming year, your Board of Trustees has endeavored to plan a budget which will balance. To do so, however, has required that every item had to be reduced as radically as possible without unduly cramping the activities of the Society. Any further expenditures above the amounts indicated in the budget submitted would involve drawing on the reserve principal of the Society, which action should be done only in case of grave emergency.

In concluding this, my second term of office as Treasurer of the Colorado State Medical Society, I wish to express my deep appreciation to all the officers of the Society, and especially to your Executive Secretary, for their kindness and consideration and great help to me in carrying out the duties imposed upon me. It has been a pleasure to serve the Society for the past six years and I trust that my successor may derive as much happiness as I from this association.

Respectfully submitted,
L. W. BORTREE.

SUPPLEMENT TO THE REPORT OF THE TREASURER

COMPLETE FIGURES FOR THE FISCAL YEAR

Balance on hand Sept. 1, 1931		$13,437.11
RECEIPTS		
Dues, resident	$10,260.00	
Dues, non-resident	170.00	
Space rentals	375.00	
Interest and securities	1,494.46	
Miscellaneous	32.75	
Publications	10.764.24	
Total receipts		$23,096.45
Total		$36,533.56
DISBURSEMENTS		
General Fund	$ 8,199.41	
Publication Fund	16,287.02	
Medical Defense Fund	38.55	
Library Fund	508.83	
Education Fund	893.75	
Total disbursements		$25,927.56
Balance on hand Aug. 31, 1932		$10,606.00

STATUS OF INDIVIDUAL FUNDS

Medical Defense Fund:		
Balance, Sept. 1, 1931		$ 500.00
Disbursements		38.55
Balance, Aug. 31, 1932		$ 461.45
Library Fund:		
Balance, Sept. 1, 1931		$ 151.62
Appropriation		500.00
		651.62
Disbursements		508.83
Balance, Aug. 31, 1932		$ 142.79
Education Fund:		
Balance, Sept. 1, 1931		$ 7.500.00
Disbursements		893.75
Balance, Aug. 31, 1932		$ 6,606.25

Publication Fund:

Balance, Sept. 1, 1931	$ 1,200.00
Appropriation, subscriptions	2,120.00
Receipts	10,764.24
	$14,084.24
Disbursements	16,287.02
Deficit charged to General Fund	$ 2,202.78

General Fund:

Balance, Sept. 1, 1931	$ 4,085.49
Receipts	12,332.21
	$16,417.70
Disbursements	8,199.41
	$ 8,218.29
Appropriated to other funds	2,620.00
	$ 5,598.29
Deficit, publication fund	2,202.78
Balance, Aug. 31, 1932	$ 3,395.51

DISTRIBUTION OF LIQUID ASSETS BY FUNDS

Medical Defense Fund	$ 461.45
Library Fund	142.79
Publication Fund	.00
Education Fund	6,606.25
General Fund	3,395.51
Total	$10,606.00

LOCATION OF LIQUID ASSETS

Bonds, par value	$ 8,000.00
Savings Account	1,493.03
Checking Account	1,022.75
Check not deposited	90.22
Total	$10,606.00

In addition to the above there is, in the hands of the Executive Secretary, the Revolving Fund in the sum of $300.00, which is not handled by the Treasurer and therefore not included in this compilation. It should be noted that the amount of the Revolving Fund was increased from $200.00 to $300.00 at the beginning of this year by transfer from the General Fund, the additional $100.00 appearing throughout the above reports as a disbursement of the General Fund.

L. W. BORTREE,
Treasurer.

The report was referred by the President to the Reference Committee on Audits and Appropriations.

Dr. Heusinkveld: "I think it is appropriate that this Society give our Treasurer, who has completed his second term of service, a vote of thanks for his efficient work, and I so move."

Motion seconded by Dr. Yegge and carried.

Dr. J. W. Amesse then presented the report of the Delegates to the American Medical Association as follows:

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

To the House of Delegates of the Colorado State Medical Society:

As Senior Delegate to our parent organization I again have the honor to report briefly the proceedings of its last session. On this occasion, notwithstanding the clouded financial horizon which limited the attendance to the lowest figures for the past decade, New Orleans surpassed her own renowned hospitality; the great city auditorium, easily accessible to all, readily accommodated not only the various professional assemblies, but the scientific and commercial exhibits, the clinical lectures and motion picture theatres. Particularly noteworthy among the latest adjuncts to our national meeting were the technical exhibits on poliomyelitis, on accepted food products, on investigations of diseases of the colon, ringworm fungi, the hormone of the suprarenal cortex, etc.

Quoting from the Journal the entire spirit of the session was one "which could not be depressed; a demonstration of the innate conviction of all that medical sciences must go on, that the practice of medicine is essential to human happiness, and that the physician and those associated with him in his work must carry on regardless of extraneous circumstance." The House of Delegates, surprisingly well attended, considered as usual a number of important problems presenting themselves either to the entire profession or to one of the component societies. The proceedings at each session were dignified and were marked by keen interest for the welfare of both medicine and the public.

Among the major issues discussed by this representative body, first in importance perhaps was that embracing the attitude of organized medicine toward veterans legislation. This vital question will be considered separately. Further matters developing close scrutiny and earnest discussion included resolutions on certain items in medical education, on standardized nomenclature of diseases, on increased taxation for the medical profession.

Election of officers resulted in the selection of Dr. Dean Lewis, of Baltimore, for the Presidency, while Milwaukee was chosen for the meeting place, session of 1933.

The Society will be interested to learn that for the first time in its history five accredited delegates from Colorado were seated in the National House. In addition to the two official members, Dr. Delehanty served as delegate from the section on Nervous Diseases, Dr. Crisp from the section on Ophthalmology and Dr. Wasson from the section on Radiology.

Respectfully submitted,
JOHN W. AMESSE.

Dr. Amesse (Continuing): "There is so much work still pending that I don't feel I should elaborate any further on my report than to say that the important legislation of the American Medical Association centered about veterans' enactments, which we all consider sufficiently important to take our time. That will be taken up in a separate report by the Veterans' Legislation Committee."

President Delehanty: "The next order of business will be the reports of Standing Committees. These have all been published. There may be supplements to some of them. Dr. Halley, have you a supplement to the Library report?"

Dr. Halley: "I have a letter from the Chairman of the Library Committee, addressed to the House of Delegates. In effect it asks for more money for the medical library. I should like to have it referred to the Committee on Audits and Appropriations, if that is possible."

The President so referred the letter.

The report of the Committee on Scientific Work was then presented, as follows:

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK

To the House of Delegates of the Colorado State Medical Society:

The principal item in the report of the Committee on Scientific Work is the Scientific Program—which we trust will be favorably received.

A few innovations will be noted: The program is larger than usual, a total of forty-one papers being listed. Morning papers are pre-

sented without discussion; afternoon papers with discussion; an entire evening is given to papers and discussion on medical economics.

The four guest speakers on the Scientific Program are sponsored by the Colorado Neurological Society, the Rocky Mountain Pediatric Society, the Denver Radiological Club, and the Rocky Mountain Orthopedic Club. The Committee wishes to express its thanks to these societies for the strong support that they have given to the program.

Our late colleague and past president, Dr. William A. Kickland, served on this committee and worked in the preparation of the program. The program therefore represents in a measure Dr. Kickland's last contribution to the activities of the Colorado State Medical Society.

Respectfully submitted,
C. S. BLUEMEL, Chairman,
A. J. MARKLEY.

The report was referred to the Reference Committee on Reports of Committees.

The report of the Committee on Public Policy was next presented in its printed form, as follows:

REPORT OF THE COMMITTEE ON PUBLIC POLICY

To the House of Delegates of the Colorado State Medical Society:

The year just closed not being a legislative year, your Committee on Public Policy has not been called upon for the strenuous efforts put forth by its immediate predecessor. It has none the less been a very busy year. The Committee has held five called meetings, and twenty or more informal conferences have been held by the Chairman and Secretary together with a few other members.

A report of all the Committee's activities in complete detail would be superfluous and would involve the mention of names or events which in the interests of the Society are better held confidential. This report will therefore consider the Committee's work only generally and in groups.

Relations between the Committee and the State Board of Medical Examiners have been most cordial and have been productive of changes which will result in improvement of conditions of practice. The Committee has considered and referred to the Board eleven instances of irregular practice. In turn, the Board on three occasions has referred to the Committee cases of ethical irregularities within the Society, cases which the Board considered not sufficiently flagrant to warrant disciplinary action. The Committee in these instances called in officers of the Society who assisted in adjusting the cases satisfactorily, two of the cases being referred to the Board of Councillors.

On four occasions the Committee has advised county societies regarding matters of public policy, in each case at the request of the local society. On five occasions questions of policy referred to the Committee by individuals were referred back to the local society in whose jurisdiction the situations arose, as being matters of purely local interest.

On three occasions the Committee has caused articles to be published in Colorado Medicine warning members of the Society against questionable investment schemes offered to the profession by outsiders.

The Committee has cooperated with the Bureau of Legal Medicine and Legislation of the American Medical Association, in seven instances acceding to requests of the Bureau for letters and telegrams to Colorado members of Congress concerning legislation in which the American Medical Association was particularly interested.

The Committee on several occasions has considered the problems created by formation of so-called mutual benefit associations which offer medical care either publicly or semi-publicly for payment of monthly membership fees. In one such case considerable joint discussion was had with representatives of the Board of Medical Examiners. The Committee finally referred the situation to the Board of Councillors for a decision concerning the ethics of members participating in such medical plans.

Within the last two months, the Committee has devoted special attention to plans for the coming legislative session. The Committee has endeavored to lay such plans as can be agreed to and followed by the incoming Committee with as little confusion as possible occurring from the change in Society administration. At the same time the Committee has endeavored to avoid leaving any more of the work than is necessary to the incoming Committee.

The Committee has used the authority given it by the By-Laws to increase its numerical strength. It has appointed as special members of the Committee at least one member of the Society in each state senatorial district, such special members of the Committee to be held responsible for frequent reports to the central committee on the progress of the legislative election campaign in their respective districts. These additional members, in cooperation with the constituted officers of the local societies, are also held responsible for obtaining all necessary information concerning the attitude of legislative candidates toward scientific medicine and public health. It is the belief of the Committee that this plan will be productive of better results than the plan followed two years ago, involving as it did the extensive and expensive mailing of individual questionnaires, bulletins, and reports from the Executive Office in Denver.

At the time this report is written, it is probable that an additional meeting of the Committee will be held before the Annual Session. Should any situation develop justifying a supplemental report to the House, such report will be delivered verbally by the chairman.

In conclusion, the chairman wishes to express his appreciation especially to those members of the Committee who have made frequent journeys to Denver to attend Committee meetings, and to the officers of the Society who have aided the Committee in many situations.

Respectfully submitted,
COMMITTEE ON PUBLIC POLICY.
H. R. McKEEN, Chairman,
H. S. FINNEY, Vice Chairman,
W. W. KING,
B. B. JAFFA,
J. A. PHILPOTT,
GEORGE H. CURFMAN,
Z. H. McCLANAHAN,
W. W. HARMER,
CARBON GILLASPIE,
EDWARD DELEHANTY,
LORENZ W. FRANK,
MR. HARVEY T. SETHMAN.

President Delehanty: "Is there a supplement to your report on Public Policy, Dr. McKeen?"

Dr. McKeen: "Mr. President, three matters

were brought to us after what we thought was the last meeting of the Public Policy Committee.

"One was the relation of the Colorado State Hospital to the profession; another dealt with veterans' compensation—whether or not we would approve the action of the New York Academy of Medicine in regard to veterans' compensation; and another one, a matter in which Mr. Rosell, representing the National Food Bureau, wished to present a resolution before the Committee.

"All of these matters were acted upon. If the Secretary will read those reports, I believe it will be more intelligible than if I should endeavor to report them without the notes."

Mr. Sethman: "Minutes of the meeting of the Public Policy Committee called at 5 p. m., September 7, 1932, Stanley Hotel, Estes Park.

"Present: Chairman McKeen, Members Curfman, Jaffa, Delehanty, McClanahan, King, Secretary Sethman.

"A complaint was presented outlining seven charges against the Colorado General Hospital's system of admitting patients, as follows:

"First: That the Colorado General Hospital is receiving patients who are not indigent.

"Second: That the Colorado General Hospital is receiving from three to five dollars per day from patients admitted.

"Third: That this practice is encouraged by the County Commissioners of the various counties.

"Fourth: That it is reported that the County Commissioners of some counties take promissory notes from the patients treated at the Colorado General Hospital, these notes to reimburse the counties.

"Fifth: That physicians receiving salaries from State institutions are practicing medicine for fees in and out of the institutions where they are employed.

"Sixth: That the policy of advertising in the public press by the Colorado General Hospital is contrary to medical ethics.

"Seventh: That the Colorado General Hospital, a State-owned institution, is in direct competition with private hospitals and practicing physicians.

"After receiving the complaint, the Committee called before it Dr. M. H. Rees to answer to the complaint and explain the position of the hospital.

"(May I interpolate here and state that these notes are those which the Chairman of the Committee directed me to take at the time the meeting was in progress, and do not represent all of the discussion which took place?)

"Regarding the first complaint, Dr. Rees stated that the hospital was probably guilty of receiving patients who are not indigent, but that most of said patients come from doctors who are members of the Medical Society, and come with letters from doctors entitling them to admittance. Dr. Rees stated that it is the policy of the hospital to accept a patient when so requested by a physician, without question. Dr. Rees also stated that a number of non-indigent cases were forced upon the hospital by the Governor, by the Board of Regents of the State University, and others in high authority, whose requests could not be refused.

"Regarding the second complaint—Dr. Rees stated that not more than ten were received within the last year on the five-dollar rate and at least half of them came with letters from physicians entitling them to admittance. He stated that the biennial report of the Dean and Superintendent has already recommended discontinuance of this plan. He stated that approximately $70,000.00 per year is the total income received both from patients direct and from County Commissioners when the counties pay the patient's way.

"In answer to a question, Dr. Rees pointed out that the state law controlling the hospital requires the hospital to take all emergencies without investigation of the financial status of the patient.

"Regarding the third complaint,—that County Commissioners are encouraging such practices,—he stated that while there was some abuse in the past there is less now, and it is decreasing.

"In regard to the fourth complaint,—that County Commissioners are taking promissory notes,—he stated that this is true but that most of the trouble seems to be originating in Arapahoe County. He said that the patient must pay three dollars per day in the hospital if he is sent in on a doctor's letter, but two and a half dollars per day if sent in by the county, and that a number of doctors, to save their patients money, have sent patients to the County Commissioners to have the counties send them in and let the patients reimburse the county.

"In regard to the fifth question,—that physicians are receiving salaries from state institutions and at the same time practicing for fees in and out of those institutions—he stated that Doctors Ebaugh and Johnson of the Psychopathic Hospital are allowed, under the rules of the hospital, two hours a week for consultation work, and that Dr. Black, the pathologist, was allowed temporary employment at Porter Sanitarium.

"There was considerable discussion concerning the attendance of psychiatrists of the hospital upon court cases outside of Denver.

"Regarding the sixth question—concerning publicity given the Colorado General Hospital—Dr. Rees stated that it is true that the hospital employs on half time a publicity man, but that this was done over the objection of the Dean, under the direction of President Norlin of the University, and the Board of Regents.

"There was considerable discussion concerning the basis of this complaint. The complaint originated principally due to publicity concerning the hospital's work and study of allergic conditions, and complaints were made that the hospital is not referring patients back to private physicians for this type of work.

"Dr. Rees stated that the hospital does refer patients back, but refers them only to men who will do the type of work that the hospital is attempting to study. He stated that the publicity given the hospital in this regard has unquestionably stimulated private practice, and that the hospital has without doubt referred many thousands of dollars' worth of practice, not only in Denver but over the whole United States.

"He stated that the publicity man employed by the hospital is not responsible for the particular publicity that is given to the head of the Psychiatry Department; that this is due primarily to the fact that there are two newspaper workers in Denver who are particularly interested in psychiatry and have been encouraging such publicity.

"In answer to a question by the Committee, Dr. Rees stated that the policies of the hospital are directed by the executive faculty of the Medical School, which consists of fifteen members, all but three of whom are Doctors of Medicine.

"At the close of the discussion it was moved, seconded and carried that in the Committee's report to this House, it ask the House to direct

the Advisory Committee to the School of Medicine to investigate these complaints, and to act so far as possible as an arbitration body between the complaining doctors and the hospital.

"Concerning the New York Academy of Medicine proposal, it was moved, seconded and carried that the Committee approve the action of the New York Academy of Medicine in regard to retirement officers' pay paid to professional men who are actively engaged in the practice of their professions.

"After hearing Mr. Rosell's proposal, and after viewing resolutions passed by other State Medical Societies, the Committee directed Dr. Curfman, a member, to prepare a resolution to present to this House on behalf of the Committee, to approve the work of the National Food Bureau."

President Delehanty: "Unless there are some remarks that Dr. Rees might make on this subject, we will refer the reports to the Reference Committee on Reports of Committees."

Dr. M. H. Rees: "I may make one explanation. There is one thing that I am afraid wasn't quite clear in Mr. Sethman's report. That is in regard to those five-dollar-a-day cases. In those cases, the doctor himself specifically stated in his letter that they should pay five dollars a day. That was the reason for making the charge. It was specifically stated by the doctor that they should pay that sum."

The report of the Committee on Publication was then presented, as follows:

REPORT OF THE COMMITTEE ON PUBLICATION

To the House of Delegates of the Colorado State Medical Society:

In presenting this annual report the Committee on Publication feels that it is proper to mention with deep regret the recent loss by death of Dr. George A. Moleen, one of the early editors of Colorado Medicine, and for years an active and interested member of the Committee.

The Committee is indebted to Dr. Douglas W. Macomber for his very conscientious work as scientific editor of Colorado Medicine.

The Committee again expresses its appreciation of the very substantial improvement in the financial condition of Colorado Medicine accomplished by the Society's Executive Secretary, Mr. Harvey T. Sethman, and also of the general efficiency of Mr. Sethman's work as managing editor.

Mr. Sethman's financial statement will include details with regard to Colorado Medicine.

During the past year, upon the initiative of the Executive Secretary, an important addition was made to the publication activities of the Society, in the form of the Medicolegal Digest, which has been circulated to every member. The Digest was planned as a brief compendium of information concerning the more important laws, rules, and official regulations with which the physician is in daily contact. The material for the volume was assembled during a period of about ten months in 1931. It summarizes the laws and procedures with regard to medical practice, public health administration, narcotics, alcoholic liquor, malpractice, poor relief, income tax, workmen's compensation, and other matters; as well as listing government and other public officials with whom the physician is brought into relationship. It furnishes a directory of hospital facilities, a directory of the membership of the Colorado State Medical Society, and miscellaneous information with regard to the Society itself. The Digest was issued under authority conferred by the House of Delegates at the Sixtieth Annual Session, and it is planned to bring the volume up to date every second year. A very important part of the expense of publishing this volume is borne by advertising.

The following are the publication statistics in regard to Colorado Medicine for the fiscal year:

Number of issues published	12
Pages, scientific section	600
Pages, advertising section	648
Total pages published	1,248
Original articles, Colorado section	66
Original articles, Wyoming section	8
Original articles, Hospital section	10
Total original articles	84
Books received for review	72
Volumes of exchange journals received	65

Respectfully submitted,

WILLIAM H. CRISP, Chairman,
C. F. KEMPER,
C. S. BLUEMEL.

The President referred the report to the Reference Committee on Reports of Committees.

The President called on Dr. C. F. Hegner to present the report of the Committee on Medical Defense, as follows:

REPORT OF THE COMMITTEE ON MEDICAL DEFENSE

To the House of Delegates of the Colorado State Medical Society:

From the year's work, it is the conviction of the members of the Committee on Medical Defense that practically all suits for malpractice originate in the criticism, either intentional or inadvertent, of colleagues by some member of the profession.

It is our most earnest desire that such criticism be guarded against.

At the beginning of the year, five cases were pending from the previous year. Twenty-one new cases were called to the attention of the Committee during the year. With the whole-hearted cooperation of all members called upon by the Committee, we are able to report that no case judged by the Committee to be defensible has to date been decided finally by the courts unfavorably to the sued physician. The Committee recommended settlement in two cases wherein it was our judgment that the cases were not properly defensible. Of the remaining twenty-four considered, ten are still pending in one form or another, seven were dropped by the plaintiffs before reaching trial, five were dismissed on arguments by the presiding judges, and two which reached the jury stage resulted in verdicts for the defendant doctors.

We bespeak the continued aid of members of the Society in the prevention of unjust suits and in the defeat of such suits when they go to trial.

Respectfully submitted,

C. F. HEGNER, Chairman,
W. WALTER WASSON,
T. D. CUNNINGHAM.

Dr. Hegner (Continuing): "This report in the Handbook is self-explanatory. The work of the Committee on Medical Defense was rather arduous and not altogether pleasant.

"I want to emphasize that this committee was created to act for each individual's protection as

well as the Society collectively. I wish to emphasize that the best interests of all, individually and collectively, can be served by having every member refrain from inadvertent criticism.

"Further, any member who happens to be involved directly or indirectly in any suit, threatened or actual, should refrain from giving any interview to anybody, but refer these interviewers to the duly constituted Committee. We can best serve the Society's interests, as well as those of the individual members, by trying to avoid the ever-increasing number of suits and hence increasing the fees demanded for our liability insurance.

"The paragraph I put in the report, that it has been our experience that there has been a doctor at the bottom of all these suits, might be emphasized. Unfortunately some of them are actuated by personal animus. You never can tell when the thing is going to turn and involve you, and therefore if you refrain from making any criticism of your brother practitioner, you will help not only the Defense Committee, but you will help yourselves."

The report was referred to the Reference Committee on Reports of Committees.

Dr. Delehanty called for the reports of the Committees on Medical Education and Hospitals, Library and Medical Literature, Cooperation with Allied Professions, and Medical Economics. These reports were referred by the President to the Reference Committee on Reports of Committees without reading, as they had been printed in the Handbook. The reports follow:

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

To the House of Delegates of the Colorado State Medical Society:

Feeling that all matters at this time pertaining to the undergraduate medical instruction properly comes within the scope of the duties belonging to the Advisory Committee to the School of Medicine, this Committee has not, therefore, given special attention to this part of medical education.

The degree to which graduate medical education through postgraduate courses, or other means, is carried on in Colorado is difficult to determine, since to obtain authentic information would necessitate contacting by questionnaire or otherwise each physician in the state. There is in Colorado afforded the medical graduate only one clinic established and organized for the benefit of practicing physicians: The Annual Clinics given by the University of Colorado School of Medicine. In the six years prior to 1932 the average registration of physicians at these Clinics outside of Denver was 127, and this year it was 106, of which 31 were from towns with populations of less than 5,000, a very creditable showing under existing financial stress. At the 1932 Annual Session of the American Medical Association there were registered thirty-seven Fellows from the Colorado Society.

This Committee believes our legislature should provide more funds to be placed at the disposal of this School for further extension of its postgraduate facilities.

One of the most potent aids to the educational advancement of the practicing physician is the stimulus obtained from contacts made in a well organized and ably conducted hospital. In this State there are registered by the A. M. A. sixty-five institutions, other than those under federal control, which are classed as general hospitals; of these, nine are approved for general internship, the fifth year in medicine, by the A. M. A. through its Council on Medical Education and Hospitals; and the American College of Surgeons places twenty-eight general hospitals in Colorado on its list of approved hospitals.

The sixty-five hospitals have a bed capacity of 3,887, with a bed occupancy in 1931 of 54.7 per cent, leaving an available bed capacity of 1,760. Data collected by the Executive Office of your Society indicates that for the first six months of the present year the unused beds in the general hospitals throughout Colorado increased by approximately 10 per cent over the figures for the corresponding months of 1931.

In 1931 the nineteen federal, state, county and city institutions in Colorado serving all classes of patients had a daily average bed occupancy of 5,383, while the ninety-one non-government-owned comparable institutions had a daily average bed occupancy of 3,727. Yet during the year the total number of patients admitted in the non-government hospitals was 56,716 against 28,570 in the government institutions.

It is of importance to note that in this State there are 1,760 available beds in general hospitals registered by the American Medical Association, and of these, 1,002 are beds in hospitals rated as Class A hospitals by the College of Surgeons, that might be utilized for hospitalization of these now sent to federal institutions. If these beds were so utilized, there would result a financial saving to the taxpayer as well as in many cases a marked betterment in the morale of the patient.

Greater bed occupancy in our hospitals would make possible a reduction in the per diem cost that could be passed along to the benefit of all pay patients, and thereby lessen the cost of illness, which from necessity is receiving so much attention at the present time.

As taxpayers, as well as physicians, there is involved an economic problem of no small magnitude.

Your Committee respectfully calls attention to the following extracts taken from editorials in the Journal of the American Medical Association of June 11, 1932:

"The federal government has gone into the hospital business in a big way. It is no secret that, except for the charity hospitals of this country and those conducted by various governmental agencies, the hospitals of the country are suffering because of the lack of occupancy of many beds. Some private hospitals are less than half occupied. A general average would indicate 40 per cent empty beds in most private institutions. Since such institutions are largely dependent on endowment and donations as well as on the fees coming from patients, their situation today is a serious one. The people of this country built these hospitals to meet their needs and, in many instances have made notable sacrifices to maintain them. Because of the emergency there has been increasing call on the facilities of federal, state, county and municipal hospitals. Many of them have been filled to the capacity of their equipment. Under these circumstances cries have come from the bureaucrats, big and little, for increased funds to be raised by taxation or by the issuing of bonds for the enlargement of such institutions. The people of our country must well consider whether it would not be for the greater good to apply available federal, state, county and municipal funds to the utilization of the vacant beds in private institutions.

"The medical profession of the country does

not yield to any other group in its desire to see that those who gave of their best to our country in its time of need receive the best type of medical care in their time of illness and distress. The reputation of the medical profession so far as proper medical care of the poor is concerned has been established through many centuries of practice. Never has the physician hesitated to give ungrudgingly of his time and of his skill for those in need. Obviously, he would hesitate still less if called on to care for any one who had served the country in military or naval warfare. Nevertheless, it has been argued that the desire of the physician to have the Veterans' Administration use the available beds in civilian hospitals and the available service of private physicians is animated primarily by a pecuniary motive. The insinuation is intolerable because based on a misunderstanding of the motivation and particularly because it comes from those who must themselves benefit both in money and in prestige by a maintenance of the present situation. The medical profession of this country has given intensive study to the question of the provision of the best type of medical care, not only for the veteran, but also for our citizenry in general. It is the opinion of the vast majority of physicians that the best type of medical care in 90 per cent of the illnesses that afflict mankind is to be had at the hands of the family physician and preferably in an institution in the community in which the sick man or his family resides. Certainly, it would seem to be well within reason that the Veterans' Administration realizes the importance of this observation and that it arrange so far as general medical and surgical cases are concerned to provide the veteran in his hour of need with this type of medical care."

Your Committee recommends that the Colorado State Medical Society give its endorsement to the position taken by the Journal of the American Medical Association, and further suggests that through its officers this Society take such measures as may be deemed advisable to impress upon the Senators and Congressmen the conviction of the medical profession on this question of such great import to the patient, the taxpayer, and the physician.

Respectfully submitted,
HERBERT A. BLACK, Chairman,
PHILIP HILLKOWITZ,
FRED A. FORNEY.

REPORT OF COMMITTEE ON LIBRARY AND MEDICAL LITERATURE

Your Committee on Library and Medical Literature presents the following report:

It might be of interest to the members of the State Society first to know that in addition to those books purchased from the fund allotted for the purpose, and those given by members of the Denver branch, there has been added to the shelves of the library the very valuable collection of medical classics from the library of Dr. Herbert M. Evans of the University of California, at a price far below their real value. This really priceless collection, many of which are first editions, was brought to our attention by Dr. James J. Waring, who negotiated its purchase and who also enlisted the aid of generous lay and professional friends of the Library to the extent of several thousands of dollars towards the purchase price. The entire sum is to be raised by subscription, of which amount $10,000 is still owing. May we enlist the cooperation and financial aid of the profession in this matter.

We are happy to state that in addition to $1,000 given by the Denver Dental Association last year towards the indebtedness incurred in the reorganization of the Medical Library, a second contribution of a like amount was recently received. We feel sure that every member of this Society will appreciate the fine spirit manifest in these gifts, totaling $2,000 from the association. Since the reorganization of the Library, a rapid increase in patronage has been noted (44 per cent increase in the amount of material borrowed, and 24 per cent increase in the number of visitors), and this encourages us to remind you that this is your Library and that those in charge are always pleased to be of assistance to you in all things connected with our library work.

Considering the prominence which the Library has now attained and the desirability of continuing it at the highest possible standard of material and scientific efficiency, your Committee respectfully suggest and urge, that an increased allowance commensurate with the library needs, be made for the coming year, and do at this time recommend for your consideration, That the sum of $1,000 per annum be set apart for library extension and development, in conformity with the plan envisioned by the late lamented Dr. W. A. Jayne, who for many years proved a constant inspiration, friend and guide in all matters connected with the Library.

The cost per thousand volumes for care and maintenance, which includes janitor service, insurance, light, telephone, and salaries of the attendants, is about $167 per year—hence the suggestion of the committee that 25 per cent of the amount assigned for library purposes be allowed on cost of library upkeep, the balance to be expended for books.

For the Committee,
F. W. KENNEY, Chairman.

Supplements to Report of Committee on Library and Medical Literature

September 1, 1931, to September 1, 1932

Number of volumes in Library Sept. 1, 1931	2,080
Volumes received through Colorado Medicine, Sept. 1, 1931, to Sept. 1, 1932	72
Volumes purchased, Sept. 1, 1931, to Sept. 1, 1932	50
Total volumes in Library Sept. 1, 1932	2,202
Cost of volumes purchased	$508.83
Amount paid from appropriation	500.00
Excess above appropriation	8.83
Library reserve fund, Sept. 1, 1931	$151.62
Excess charged to reserve fund	8.83
Balance in reserve fund, Sept. 1, 1932	$142.79
Total visitors residing outside Denver, Sept. 1, 1931, to Sept. 1, 1932	129
Shipments requested, Sept. 1, 1931, to Sept. 1, 1932	86
Items loaned. Sept. 1, 1931, to Sept. 1, 1932	229

Books Purchased for the Colorado State Medical Library

September 1 1931, to September 1, 1932

Agduhr, Erik and Nils Stenstrom. Appearance of the electrocardiogram in heart lesions produced by cod-liver oil treatment.
Addis & Oliver: The renal lesion in Bright's disease. 1931.
Bailey: The diary of a resurrectionist.
Bailey: Emergency surgery. vol. 2, 1931.
Beers: The mind that found itself.
Besredka: Local immunization. 1927.

Boyd: Pathology of internal diseases. 1931.
Buie: Monograph on proctoscopic examination, hemorrholds and anal pruritus.
Campbell: The black death and men of learning. 1931.
Cheatle & Cutler: Tumors of the breast.
Coca & Thommen: Asthma and hay fever.
Committee on Vaccination: Vaccination; further report of the committee. 1930.
Comrie: History of Scottish medicine. 2 v. 1932.
Dictionary of American Biography. 9 vols.
Ewing: Causation, diagnosis and treatment of cancer. 1931.
Gortner: Outlines of biochemistry. 1929.
Hall: Reminiscences of past presidents.
Harvey Society of New York: The Harvey lectures. Series 26. 1931.
Hill: Adventures in biophysics. 1931.
Holt: Life of Joseph Priestly.
Jenner: The note-book of Edward Jenner. 1931.
Johann Kepler, 1571-1630.
Kerley: Recent advances in radiology.
Krogh: The anatomy and physiology of capillaries. 1929.
Loeb Classical Series—
Galen: On the natural faculties.
Aristotle: The physics.
Hippocrates: Works. 4 vols.
Paget: Confessio medici. 1931.
Sergent and others: Exploration radiologique de l'appareil respiratoire. 2 vols. 1931.
Simons and Sinai: Way of health insurance. 1932.
Singer: Story of living things. 1931.
Stubbs and Bligh: Sixty centuries of health and physick. 1931.
Wright: Applied physiology. 1931.
Lewis: The Blood vessels of the human skin and their responses. 1927.
Cutting: Principles of preoperative and postoperative treatment.
Livingston: A clinical study of the abdominal cavity and peritoneum.
Porter and Carter: The sick infant. 1932

Books Received by Colorado Medicine for Review September 1, 1931, to September 1, 1932

Adams, Edward: Surgery, with special reference to podiatry. Inter. J. of Surgery Co., 1932.
American Medical Association: Illus. primer on fractures. 2nd ed. rev. 1931.
American Medical Association: New and non-official remedies. 1932.
American Medical Association: Council on pharmacy and chemistry, annual reprint of the reports. 1932.
Boardwood, J. T. and H. T. Kelly: Simplified diabetic management. Phil., Lippincott, 1931.
Bradley, Alice V.: Tables of food values. Peoria, Ill., Manual Arts Press, 1931.
Camac, C. N. B.: Imhotep to Harvey. N. Y., Hoeber. 1931.
Certified Milk Conference held in 1931.
Cushing, Harvey: Intracranial tumors. Thomas, 1932.
Da Costa: Modern surgery. Phil., Saunders, 1931. 10th ed.
Dickinson, R. L. and L. S. Bryant: Control of conception. Balt., Williams & Wilkins, 1932.
Felderman, Leon: The human voice. N. Y., Holt, 1931.
Fishburg, Maurice: Pulmonary tuberculosis. 2 vols. Lae & Febiger, 1932.
Gifford, Sanford R.: A hand-book of ocular therapeutics. Lea & Febiger, 1932.
Gossett, W. B.: What the public should know about childbirth. Midwest Co., 1931.
Granger: Radiological study of the para-nasal sinuses and mastoids. Lea & Febiger, 1932.
Graves: Female sex hormonology. Phil., Saunders, 1931.
Harvey, B. C. H.: Simple lessons in human anatomy. Chicago, American Med. Assoc., 1931.
Hazen, Henry H.: Cutaneous x-ray and radium therapy. St. Louis, Mosby, 1931.
Henderson, Lawrence J.: Blood, a study in general physiology. Haven, Yale Univ. press, 1928.
Hertzler, A. E.: Surgical pathology of the diseases of bones. Phil., Lippincott, 1930-31. (Hertzler's monographs on surgical pathology.)
Hertzler, A. E.: Surgical pathology of the female generative organs. Lippincott, 1932.
Hertzler: Surgical pathology of the genito-urinary organs. Phil., Lippincott. 1931. (Hertzler's monographs on surgical pathology.)
Hertzler, E. A.: Surgical pathology of the skin, fascia, muscles, tendons, blood and lymph vessels. Phil., Lippincott, 1931.
Herzog, Alfred W.: Medical jurisprudence. Indianapolis, Bobbs-Merrill, 1931. Rec. Nov. 19, 1931.
Hirsch, Edwin W.: A non-surgical consideration of prostatic enlargement. Minneapolis Bruce Pub. Co., 1931.
Irving, Frederick C.: Expectant mother's handbook. Houghton, 1932.
Kessler, H. H.: Accidental injuries. Phil., Lea & Febiger, 1931.
Kohlmer, J. A. and Fred Boerner: Approved laboratory technic. Appleton, New York, 1931.
McPheeters, H. O.: Varicose veins. Phil., Davis, 1931. 3rd ed. rev.
Medical Clinics of North America:
Jul. y, 1931. v. 15, no. 1.
Sept., 1931. v. 15, no. 2.
Nov., 1931. v. 15, no. 3.
Jan., 1932. v. 15, no. 4.
March, 1932. v. 15, no. 5.
May, 1932. v. 15, no. 6.
July, 1932. v. 16, no. 1.
Meyer, William H.: Clinical roentgen pathology of thoracic lesions. Lea & Febiger, 1932.
Miner, Elmer A.: Living that liver diet. St. Louis, Mosby, 1931.
Montague, J. F.: Psyllium seed; the latest laxative. 1932.
Newsholme, Sir Arthur: Medicine and the States. William & Wilkins, 1932.
Packard, Francis R.: Hist. of medicine in the U. S. N. Y., Hoeber, 1931, 2 vols.
Paton, Stewart: Prohibiting minds. Hoeber, 1932.
Philadelphia: World's Centre.
Piette, Eugene C.: Pathology for nurses. Phil., Davis, 1932.
Pillsbury, Lt. Col. H. C.: U. S. Army x-ray manual. Hoeber, 1932. 2nd ed.
Poe, James G.: Modern general anesthesia. Phil., Davis, 1932.
Pruitt, M. C.: Modern proctology. Mosby, 1931.
Pusey, W. A.: A doctor in the 1870's and 80's. Springfield, Ill., Thomas, 1932.
Robinson, Victor: The story of medicine. Boni, 1931.
Scheffel, Carl: Medical jurisprudence. Blakiston, 1931.
Surgical Clinics of North America:
Vol. 11, No. 4. Aug., 1931.
Vol. 11, No. 5. Oct., 1931.
Vol. 11, No. 6. Dec., 1931.
Vol. 12, No. 1. Feb., 1932.
Vol. 12, No. 2. April, 1932.
Vol. 12, No. 3. June, 1932.
Thorex, Max: Surgical errors and safeguards. 1932.
U. S. Public Health Service: Annual report, 1931.
Van De Velde, T.: Fertility and sterility in marriage. 1931.
Vaughan, Warren T.: Allergy and applied immunology 1931.
Wells, H. G. and Long, E. R.: The chemistry of tuberculosis. 1932.
White House Conference on Child Health and Protection: Body mechanics; education and practice. . . . 1932.
White House Conference on Child Health and Protection: Growth and development of the child, part 3—Nutrition. 1932.
White House Conference on Child Health and Protection: Health protection for the preschool child. . . . 1931.
White House Conference on Child Health and Protection: Nutrition service in the field. 1932.
White House Conference on Child Health and Protection: Obstetric education. 1932.
White House Conference on Child Health and Protection: Psychology and psychiatry in pediatrics. 1932.
White House Conference on Child Health and Protection: Public health organization. 1932.
Wohl, M. C.: Bedside interpretation of laboratory findings. 1931.

REPORT OF THE COMMITTEE ON COOPERATION WITH ALLIED PROFESSIONS

To the House of Delegates of the Colorado State Medical Society:

Your Committee on Cooperation with Allied Professions submits the following statement of its activities during the past year:

On March 29, 1932, your Committee received a request from the Colorado Hospital Association and the Colorado Nurses' Association to unite with them in a joint study of nursing problems

in Colorado, particularly as regards the oversupply of graduate nurses and the increasing number of student nurses in various training schools.

Two members of your Committee met with committees of the above organizations at Colorado State Hospital on the afternoon of April 29. General discussion and suggestions were offered by those present.

Your Committee again met with above committees on June 23 at the State Capitol building, receiving reports of sub-committees appointed to investigate previous questions. The report and recommendations of the sub-committees may be summarized as follows:

It is agreed that there is an over-production of nurses, especially during this period of economic distress; that the training schools of the hospitals of the state should restrict, to some measure, the number and acceptance of applicants; that the hospitals maintain a good nursing service by the employment of graduate nurses, relieving to a degree the unemployment now present. In consideration of this method, and as a temporary measure, the Graduate Nurse Association endorses this action and recommends that those employed in hospitals receive $35.00 per month, board, room and laundry with additional organized instructions.

It was also suggested and recommended that the Graduate Nurse Association offer their services for less than $6.00 per day until conditions improve. This was referred to the committee with no report to date. There has been no further demand on your Committee.

Respectfully submitted,

JOHN ANDREW, Chairman,
T. E. CARMODY,
ROBERT L. DOWNING.

REPORT OF COMMITTEE ON MEDICAL ECONOMICS

To the House of Delegates of Colorado State Medical Society:

The economic trend of corporations transacting business along similar lines is toward the organization of governing bodies whose functions are to prescribe certain rules and regulations pertaining to their trade relations.

The professions have held themselves aloof from adopting the practices of trade and commerce considering them to be unethical, lacking in dignity, and adverse to the interests of their clients. However, time has brought changes to the professions and the old ideals, if they are to be maintained must be supported by such procedures as are more than argumentative in their nature.

The social, economic and political encroachments and the resulting irregularities within the profession calls for an economic program, that is, representative, constructive and financially capable of efficient execution.

To mention each specific economic problem confronting the medical profession and to suggest a remedy for each would be time consuming. Their solution must rest in a comprehensive program, drafted and placed into execution by a larger and more representative committee or council than the one now existing. This council must take into consideration not only the problems of the profession but of its co-laborers, the nursing fraternity, the State Board of Medical Examiners, our Medical College, and our hospitals. It must define the limits of service rendered by the staffs of free clinics, municipal institutions, and out-patient departments. It must, in short, build a foundation for the care of the sick of all classes under the control of the profession that is fair and honorable to the public and to ourselves. It must draft a definite plan of income for the State Society to insure the success of its program now and in the future.

We therefore recommend:

(A) That changes be made in the constitution and by-laws of the Colorado State Medical Society permitting the election of a Council on Medical Economics by the House of Delegates.

(B) That the Council shall consist of nine members, three from the City of Denver and one each from Colorado Springs and Pueblo and one each from the group of counties of Northwest, Southwest, Southeast and Northeast Colorado exclusive of the Counties of Denver, El Paso and Pueblo.

(C) That each member of the Council must be a member in good standing of the American Medical Association and of its constituent and component societies.

(D) That the members of the Council be elected to serve for two years except that at the first election of the Council four of its members be elected for one year only, so as to prevent a complete change of personnel during any one year.

(E) That the Council on Medical Economics elect a presiding officer from its own membership and draft its own rules of procedure, not conflicting with the rights and prerogatives of the Committee on Public Policy or the Board of Trustees.

(F) That the Executive Secretary of the Colorado State Medical Society or one whom he may designate from his staff, shall act as Secretary to the Council on Medical Economics.

(G) That the Council on Medical Economics meet quarterly at the office of the Executive Secretary of the Colorado State Medical Society in Denver on definite dates as prescribed in the rules of procedure of the Council.

Respectfully submitted,

B. B. BLOTZ, Chairman,
J. M. FOSTER, JR.,
J. B. CROUCH.

President Delehanty then called for the reports of Special Committees, which were presented in their printed form and referred each to the Reference Committee on Reports of Committees, as follows:

REPORT OF THE COMMITTEE ON MEDICAL EXTENSION

To the House of Delegates of the Colorado State Medical Society:

Your Committee on Medical Extension held three meetings during the past year. At the first meeting a questionnaire was prepared for the purpose of ascertaining the attitude of Colorado physicians toward extension courses. A summary of the replies as received is herewith submitted:

Summary of Report on Questionnaire on Proposed Extension Courses

1. Do you favor some form of extension work, supervised by the State Medical Society, for the physicians of Colorado?

Yes	218	
Yes with conditions	10	
		228
No	30	
No with conditions	1	
		31
No answer given		20

2. (a) Would you prefer a course of clinics or lectures conducted at some central point such as Denver?

Yes	185	
Yes with conditions	8	
		193
No		48
No answer given		38

(b) Would you prefer the same carried, as far as possible, in the various counties or groups of counties?

Yes	80	
Yes with conditions	6	
		86
No		102
No answer given		91

(c) Would you prefer the same conducted in five or six hospital centers in the State?

Yes	90	
Yes with conditions	10	
		100
No		94
No answer given		85

3. (a) Would you favor having the clinics and lectures conducted by local physicians?

Yes	174	
Yes with conditions	18	
		192
No	69	
No with conditions	2	
		71
No answer given		16

(b) Would you favor having the clinics and lectures conducted by physicians from outside the State, realizing that the latter plan would entail considerably more expense?

Yes	82	
Yes with conditions	16	
		98
No	112	
No with conditions	3	
		115
No answer given		66

4. Would you approve an extra clinical day to be held in connection with the State meeting?

Yes	159	
Yes with conditions	9	
		168
No	92	
No with conditions	2	
		94
No answer given		17

5. Would you be willing to pay a registration fee of from $10 to $20 for a five-day series of clinics and lectures?

Yes	170	
Yes with conditions	25	
		195
No	74	
No with conditions	4	
		78
No answer given		6

Your Committee interprets this report as indicating that there is a definite demand for centrally located postgraduate clinics. There is, however, sufficient demand for clinics in hospital centers other than Denver to warrant our attention.

Basing its action upon the report as submitted above, your Committee makes the following recommendations:

1. That the President appoint a Committee on Postgraduate Clinics.
2. That the Committee on Postgraduate Clinics organize and conduct a five-day clinic in Denver.
3. That the clinics be held in so far as possible in connection with the School of Medicine and Hospitals.
4. That a registration charge of $15.00 be made to defray expenses.
5. That the clinics be planned for the needs of the general practitioner.
6. That bedside instruction be used in so far as possible.
7. That the Postgraduate Clinics Committee consider the advisability of establishing, at a later date, clinics in other hospital centers in Colorado.

Respectfully submitted,
MAURICE H. REES, Chairman,
OSCAR M. GILBERT,
CLINTON E. HARRIS.

REPORT OF THE COMMITTEE ON INDUSTRIAL COMMISSION FEES

To the House of Delegates of the Colorado State Medical Society:

This Committee, organized two years ago, succeeded just before the last annual session in obtaining a revision of the Workmen's Compensation Fee Schedule which, while it has many faults, is generally considered to have proved to be an improvement over the schedule previously existing.

Since the revision of the schedule, no business has been presented to the Committee.

There are other features of Workmen's compensation affairs which may well be considered by a committee organized for the purpose, but which do not fall within the powers of the existing committee. It is our recommendation, therefore, that the present committee, as such, be discontinued, and that the President appoint such other committee as he sees fit to consider the features of workmen's compensation affairs which are not purely those of the fee schedule.

Respectfully submitted,
COMMITTEE ON INDUSTRIAL COMMISSION FEES, by
WILLIAM H. HALLEY, Chairman.

REPORT OF THE COMMITTEE ON CANCER SURVEY

To the House of Delegates of the Colorado State Medical Society:

The special committee on Cancer Survey appointed by Dr. Edward Delehanty, President of the Colorado State Medical Society, can make no further suggestions than those recommended in its previous report of last year.

The present time does not seem suitable for the purchase of radium by the state or the formation of clinics for the care of cancer. It seemed best to take care of this situation as we have been doing in the past until the economic depression is relieved and times are more suitable.

Respectfully yours,
COMMITTEE ON CANCER SURVEY, by
CLARENCE B. INGRAHAM, Chairman.

REPORT OF THE COMMITTEE ON STATE REGISTRATION FEE

To the House of Delegates of the Colorado State Medical Society:

It has been impossible for this Committee to meet because its membership was scattered widely over the state and such informal conferences as the Committee members have been able to hold have been by correspondence.

To make an adequate study of this question it would be necessary for your Committee to meet many times in study and conference. We recommend that the work of this Committee be continued by appointees grouped as nearly as possible in one location.

Respectfully submitted,
COMMITTEE ON STATE REGISTRATION FEE, By
GERRIT HEUSINKVELD, Chairman.

REPORT OF THE COMMITTEE ON VETERANS' LEGISLATION

To the House of Delegates Colorado State Medical Society:

A special committee on Veterans' Legislation was appointed by the Trustees of the Society in February, 1932. In order to secure a comprehensive survey of the views entertained by veterans in this state toward existing and proposed legislation, a sub-committee of twenty members representing all districts of Colorado was appointed in March. The majority of these physicians are members of the American Legion, some are officially connected with the Veterans' Bureau; all are veterans. These individual reports have not yet been assembled but will be presented at the annual meeting, together with personal opinions on controversial issues connected with this vital subject which may seem timely and pertinent.

Respectfully submitted,
J. W. AMESSE, Chairman,
CRUM EPLER,
E. L. TIMMONS,
L. H. WINEMILLER,
L. V. SAMS.

REPORT OF THE ADVISORY COMMITTEE TO THE SCHOOL OF MEDICINE

The Committee held one meeting during the past year. Three members were present.

The Committee feels that in this period of economic distress when the first and most important consideration apparently before the people is taxation, it behooves the School of Medicine to reduce its operating costs to the lowest possible minimum consistent with efficiency. This, of course, applies to Colorado General Hospital and its allied hospitals. It is our opinion that by careful attention to operating costs this can be accomplished.

The Committee further feels that during the present period there will probably be more than the ordinary effort put forth to secure free medical treatment or treatment at reduced cost by those comparatively able to pay full cost of hospitalization and treatment; that this tendency should be recognized and combated by the authorities of the University Hospitals.

The Committee further feels that in the selection of medical students to be trained in our Medical School every effort should be made to secure those who will later serve the state in their professional capacity.

It is our understanding that the primary purpose of this committee was to receive complaints of the members of the State Medical Society against the Medical School and Hospitals. We question whether the members of the State Medical Society are cognizant of this fact.

There are many lines of inquiry that could be taken up relative to the operation of the school and hospitals with what we believe would be mutual benefit to the school and to the State Medical Society. We would therefore appreciate suggestions from the House of Delegates provided this committee is to be continued.

Respectfully submitted,
CHARLES O. GIESE, Chairman,
N. A. MADLER,
FRED M. HELLER,
T. LEON HOWARD,
WALTER E. HAYES,
G. C. CARY,
J. A. HIPP.

President Delehanty: "Next is new business. We will have to elect a Nominating Committee. Five are to be elected on this Committee, no two of whom shall be from the same constituent Society."

The following nominations were presented:
Dr. McClanahan, El Paso.
Dr. Espey, Las Animas.
Dr. Johnston, Otero.
Dr. Shippey, San Luis Valley.
Dr. Halley, Denver.

Dr. Finnoff moved that the nominations be closed and that the Secretary cast the unanimous ballot of the Society for the five men above named; seconded and carried.

President Delehanty: "Dr. Amesse, did you have some supplement to your Veterans' Committee report?"

Dr. Amesse: "Yes. As Chairman of the new Committee on Veterans' Legislation, I'd like to present the report at this time."

The report was read as follows:

SUPPLEMENT TO THE REPORT OF THE COMMITTEE ON VETERANS' LEGISLATION

To the House of Delegates, Colorado State Medical Society:

The rapidly increasing prominence of federal legislation concerned with the relief of war veterans and their dependants has aroused the special and particular interest of the medical profession. With over 40,000 of its members serving as volunteer officers in the world conflict, it has well earned the right to a voice in the councils of our government and to an opinion respecting the medical care of comrades who shared in the hardships and dangers of military service. The vital importance to organized medicine of enactments by Congress in this sphere of legislative activity will be readily appreciated; they will undoubtedly continue to hold the attention of the physician, individually and collectively, throughout the next decade, and will challenge alike the wisdom and the patriotic devotion of all.

It is needless for us to remind this House that the American Medical Association has not been unmindful of the immediate and remote effects of legislation herein referred to; indeed, it has been keenly alive to every situation that has developed in this field and through its various Committees it has been able, not only to keep in close touch with the rapidly expanding program of veterans' relief but to secure the sympathetic attention of responsible and influential groups throughout the United States.

Conferences with representatives of the American Legion, the American Hospital Association and the Veterans Administration were held at Indianapolis, Chicago and Washington during the past winter. At the latter meeting, in which the Rehabilitation Committee of the American Legion was represented by 120 representatives from all parts of the country, the resolution passed by the American Hospital Association at its Toronto session, urging the use of non-federal hospitals for the care of veterans, was presented and discussed.

The Medical Director of the Metropolitan Life Insurance Company, summoned for his expert knowledge of vital statistics, advised the conference that it would be necessary, in carrying out the provisions of the law, to provide 129,000 beds, if all the disabled veterans were given proper medical treatment. Dr. West, Secretary and Gen

eral Manager of our parent association, recommended immediate discontinuance in the construction of federal hospitals and the use of our private institutions for the care of veterans suffering with disease or disability not connected with military service, mental and tuberculous cases excepted. He insisted that the man whose loss of health has not originated during his period of enlistment and who is able to take care of himself should be obligated to provide his own medical attention; that the Government should not pauperize its citizens by helping those who can readily help themselves.

The spokesman for the American Legion expressed the opposition of that powerful organization to the insurance plan proposed last year by Dr. Shoulders of Tennessee before the House of Delegates of the A. M. A. The Legion preferred to seek some conclusion on general policies rather than discuss such concrete plans as the Shoulders Resolution. A tentative agreement was finally reached, subject to endorsement by the various bodies concerned, which provided among other important items that a committee be appointed to frame an amendment to the existing laws which would permit veterans to be cared for in their home hospital and by their own physicians, at government expense. It was also recommended that liaison committees be organized in every state to secure proper cooperation among the four groups concerned and to carry forward the suggestions above outlined.

It will be apparent therefore that much of a fundamental, constructive character has been accomplished in the development of means to neutralize unusual and unwarranted encroachments in the field of medical practice.

The Colorado State Medical Society was prompt in recognizing the need for intensive study and widespread discussion of these paramount issues, which have so unexpectedly arisen in our professional life. To this end the trustees of our society appointed your committee on Veterans' Legislation with full power to institute such measures as might be necessary to determine the sentiment among veterans in this state concerning proposed changes in methods of relief, and to recommend at this session whatever action seemed most desirable. In securing the considerable data now assembled, and which is attached to this report, it was deemed expedient to select a subcommittee of twenty medical veterans, all members of this Society and representing practically every organized unit in the state.

Of this committee, fifteen have submitted reports; responsible members of the American Legion in their respective districts have been interviewed or in certain instances the local posts have discussed the question at a regular meeting. In all but two instances we are advised that the proposal of the American Medical Association to utilize local physicians and local hospitals for emergency cases in any group, and for all cases of disability not connected with military service, certain specified chronic diseases excepted, met with unqualified approval.

At the annual convention of the Colorado Legion held in Lamar, August 18 to 20, one of our members (Dr. Winemiller) requested an expression of opinion from the Committee on Resolutions. Discussion resulted in unanimous disapproval of the so-called Shoulders Plan which carries with it certain insurance benefits for the veterans during illness. Equally emphatic disapproval was voiced by officers of the Veterans' Hospital at Fort Lyon. Aside from these objections, however, the sentiment among veterans in Colorado seems distinctly favorable to such changes in the present statutes as will bring about the consummation desired by organized medicine in America. Believing this to be true, your committee takes the liberty to present the following resolutions:

Whereas, Execution of the World War Veterans' Act of 1924, designed to extend hospital relief to veterans suffering with disease or disability not connected with military service would call for the construction and maintenance of hospitals with a total capacity exceeding 120,000 beds; and

Whereas, This would constitute definite class legislation; and

Whereas, With the adequate hospital facilities already available in every section of the United States, such expenditure would involve a wasteful and extravagant use of public funds wholly unjustified, regardless of the condition of our national treasury; now be it

Resolved, That we herewith declare this Society opposed to further construction of federal hospitals for any purpose whatsoever, and be it further

Resolved, That we shall continue opposed to the administration of treatment of any character at branches of the Veterans' Bureau for disabilities other than those directly connected with the military service; and be it further

Resolved, That we request Congress to reconsider the Emergency Officers Act to the end that those obviously not entitled to compensation of this sort shall be excluded; and be it further

Resolved, That we express our disapproval of disability allowances, in the form of pensions, to veterans suffering from diseases not incurred in active service; and be it further

Resolved, That the Colorado State Medical Society, in annual session assembled, pledges itself to exert all proper measures to prevent this unwarranted increase in our tax burden, and be it further

Resolved, That this protest be conveyed through proper channels to our representatives in Congress and copies of these resolutions be forwarded to the Headquarters of the American Legion, The American Hospital Association, the American Medical Association and Veterans' Bureau of the United States.

Respectfully submitted,
J. W. AMESSE, Chairman,
CRUM EPLER,
LEE WINEMILLER,
L. V. SAMS,
E. L. TIMMONS.

Dr. Amesse (Continuing): "I have here the responses from these fifteen men who have taken the trouble to interrogate the veterans in their communities and have called meetings of their local posts. I think that inasmuch as one of the delegates seated on the floor is the only one objecting, if it meets with your approval I'd like to read the report from the Veterans' Bureau at Fort Lyon, so that Dr. Fulwider, who is here as a delegate, will have an opportunity to discuss this in extenso inasmuch as his was the only report unfavorable to it.

"This letter comes from the American Legion, Kit Carson Post No. 43, Fort Lyon, Colo.:

"Dear Dr. Amesse:

"After numerous inquiries from you regarding your proposed plan, it has been our experience that the many veterans who come to the hospital for the treatment would be, on the average, unable to pay for such service and certainly would not have the advan-

tage of x-ray and laboratory facilities in the local communities which we are able to give them here.

"As you recall, the Government had a rather unpleasant and expensive experience with contract hospitals about twelve years ago and had no supervision over the veterans' cases and care.

"We discussed this matter in an executive committee meeting last night and it is the unanimous opinion of the veterans in a position to know that such a plan would not be satisfactory.

"We have drafted a resolution opposing the Shoulders plan or similar plans for the care of veterans. We are unalterably opposed to this proposition and prefer to let matters stand as they are.

"Very truly yours,
"R. M. FULWIDER, M.D.,
"WALTER J. MacDONALD, Commander."

President Delehanty: "This report will be referred to the Reference Committee on Reports of Committees. Does anyone desire to discuss the matter?"

Dr. Fulwider: "Dr. Amesse wrote me two or three letters and I turned them over to the Post Commander to answer. When I got his last letter, I asked the Post Commander if that had been taken care of and he said 'No.' I asked him to call an Executive Committee meeting, since our Post wasn't going to meet, and several of us met there. I happen to be one of the past Commanders of the Post and naturally I am an ex-officio member of the Executive Committee. There were eight at this committee meeting. Some of them were patients, and some of us were personnel employed.

"We know what this contract hospital proposition was several years ago and I knew some cases of abuse, especially in El Paso. Without any supervision patients could go over to Juarez and get drunk and everything else.

"The plan of the Government now, as I understand it, is to reimburse the private practitioner for such services.

"The number of service-connected men in our hospital today is about 30 per cent, just a rough estimate, and the rest are what we call 'D. A. cases' or non-service connected. Some of the cases have conditions in which they can't prove service connection and then again others are just recent development cases and those are the disability allowance cases, as you know.

"The men that we get in there are usually coming in overalls and unclean clothes. They don't even have a watch, much less a diamond ring. We don't see any diamond rings coming in. The average man I talk with says that if he gets his health back he doesn't want a penny from the government.

"Another thing; the average man we get has spent his last dollar with his local physician ,and he is up against it; he has to have further treatment and he hasn't the money to pay for it. He is too proud to ask the Government to help him as long as he can help himself.

"These men who come in are usually from rural districts. We get very few from the cities. Their medical facilities are very poor.

"In practically every town there is such a thing as a designated examiner, a member of a Medical Society, and he can advise this veteran as to whether he needs a few pills or an x-ray or whether he should go to a hospital. I imagine a lot of these designated examiners don't recommend that every case be hospitalized. They advise the veteran as to what is the best thing for him to do, and he doesn't go on through the regional office and come to our hospital.

"The opinion in that letter was not my personal opinion at all; I simply signed the letter as Dr. Amesse had written to me. I signed it as a member of the Executive Committee, with Walter MacDonald, our Post Commander."

The Executive Secretary read telegrams of greeting from Dr. Earl Whedon, Secretary of the Wyoming State Medical Society (two wires from Dr. Whedon), and Dr. F. N. Cochems.

The meeting adjourned until 8 a. m. Thursday, September 8th, 1932.

SECOND MEETING OF THE HOUSE OF DELEGATES

8:20 a. m., September 8, 1932

The meeting was called to order at 8:20 o'clock by President Delehanty, pursuant to adjournment.

The roll was called by the Executive Secretary, who announced a quorum.

Mr. Sethman: "I have a letter from the Secretary of the Pueblo County Society stating that Dr. Royal H. Finney has been designated to act as alternate for Dr. Harold Low, who is unable to be present. It will take a vote of the House to seat Dr. Finney.

"Also, Dr. Gasser, alternate for Dr. Platz of Larimer County, is here. Dr. Platz was seated last night, but is not going to be at this morning's meeting. It will take a vote of the House to seat Dr. Gasser."

Dr. Yegge moved that the two delegates be seated; seconded and carried.

Minutes of the previous evening's meeting were read by the executive Secretary. There being no corrections or alterations, the minutes were approved as read.

The President called for reports of Reference Committees. Dr. Bouslog read the report of the Committee on Audits and Appropriations, as follows:

REPORT OF THE COMMITTEE ON AUDITS AND APPROPRIATIONS

Your Committee has the honor of reporting that we have severally examined the certificate of M. C. Calhoun, C.P.A., and hereby accept the certificate entitled, "General Audit of the Accounts of the Colorado State Medical Society for the year ended August 31, 1932."

We recommend no increases in salaries, and, on account of the unusual amount of work in what will be a critical period, we feel that there should be no decrease in either salaries or personnel for the ensuing year.

We have considered seriously the request of the Library Committee for an additional $500.00, and we feel that this money would be well spent. However, we feel that in view of present financial conditions an increase would be distinctly inadvisable. In order to meet in part the request of the Library Committee, we recommend that up to 50 per cent of the $500.00 appropriation be allowed for maintenance, the remainder to be used for the purchase of books as has heretofore been the custom.

We recommend the adoption of the budget as drawn, feeling that it is conservative but not at the expense of efficiency.

In conclusion, your Committee urges that each delegate, upon his return to his local society, impress upon the officers and members thereof

the importance of increasing the membership and activity of each county society during this year.

JOHN S. BOUSLOG, Chairman.
R. S. JOHNSTON,
JOHN A. SEVIER.

Dr. Liddle moved adoption of the report; seconded and carried.

Dr. Rice, member of the Committee, read the report of the Reference Committee on Reports of officers, as follows:

REPORT OF THE COMMITTEE ON REPORTS OF OFFICERS

Your Committee has the honor to report as follows concerning the Officers' reports:

Report of the Board of Trustees

(a) Your Committee commends the appointment of the Committee on Veterans' Legislation and the approval of the plan to establish a fund for giving aid to aged physicians and their widows.

(b) We heartily approve the election of Dr. A. J. Markley of Denver as alternate delegate to the American Medical Association to succeed Dr. W. C. Bane, resigned.

(c) The adoption of this report is recommended.

Report of the Board of Councillors

It is recommended that this report be approved and accepted.

Report of the Constitutional Secretary

We recommend approval and acceptance of this report.

Report of the Executive Secretary

(a) Your Committee feels that the Executive Secretary is to be commended for the manner in which he has carried out his various duties, especial mention being made of the enormous amount of work done in the Medicolegal Digest. He is to be congratulated upon the satisfactory financial condition of Colorado Medicine.

(b) Your Committee agrees with the suggestion that the number of Councillor districts should be increased from five to nine to facilitate the duties of the Councillors.

(c) We suggest that the House of Delegates accept his recommendation that constituent societies revise their By-Laws to conform to those of the State Society.

(d) It seems to your Committee advisable that Past Presidents be made Delegates-at-Large from the State Society in order that the benefit of their experience may be had.

(e) We approve the following of a conservative financial policy.

Report of the Treasurer

We commend the Treasurer for his tireless effort and the splendid manner in which his duties have been carried out.

Report of the Delegates to the A. M. A.

The approval and adoption of the report is recommended.

J. M. SHIELDS, Chairman.
W. B. YEGGE,
GEORGE E. RICE.

Dr. Sevier moved the adoption of the report. The motion was regularly seconded and carried.

Dr. Halley: "May I inquire whether, if the Past Presidents become delegates-at-large, they will have a vote in the House of Delegates? There are twenty-five of them."

Mr. Sethman: "Mr. President, under the recommendation made in the report of the Executive Secretary, it was just a general plan offered as a means to obtain the advice and counsel of these men."

Dr. Halley: "What is their status?"

Mr. Sethman: "If they should be made delegates-at-large, it would be natural that they would be voting members. That would take a constitutional amendment. It takes a year to adopt a constitutional amendment.

"Inasmuch as the House has adopted the report of this Committee which recommends that this be done, the Executive Secretary will be very glad to draw such an amendment and present it before the House adjourns this year."

President Delehanty: "We will instruct the Executive Secretary to draw up such an amendment."

Dr. George H. Curfman, member of the Committee, read the report of the Reference Committee on Reports of Committees. The report was in two parts, as follows:

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF COMMITTEES

We wish to recommend the adoption of the report of the Committee on Scientific Work, with the thanks of the House of Delegates. We note with approval the paragraph with reference to the late Dr. William A. Kickland.

We recommend that the printed report of the Committee on Public Policy be adopted, and further recommend that the verbal report of the Public Policy Committee be submitted to this reference committee in writing before final action.

We recommend the adoption of the report of the Committee on Publication. We also note with approval the paragraph in tribute to the late Dr. George A. Moleen.

We recommend the adoption of the report of the Committee on Medical Defense, and we wish that the House by its adoption of this report express its deep appreciation of the untiring efforts that the members of the Committee on Medical Defense have put forth during the year in the protection of their colleagues.

We recommend the adoption of the report of the Committee on Medical Education and Hospitals.

In study of the report of the Committee on Library and Medical Literature we note with satisfaction the expansion of the library and its increasing use by the Society as a whole. However, your Committee considers it unwise to recommend the increase, at this time, in appropriations which the Library Committee requested for further expansion and development. With these reservations, we recommend the adoption of the report.

We recommend the adoption of the report of the Committee on Cooperation with Allied Professions.

We consider the suggestions of your Committee on Medical Economics as inopportune. The recommendations would add to the organization of this Society to the extent of making it unwieldy. We recommend the tabling of this report.

We recommend the adoption of the report of the Committee on Medical Extension, with the exception of the paragraph numbered "4." We recommend that the new committee to be appointed consider a per diem registration fee.

We recommend the adoption of the report of the Committee on Industrial Commission fees.

We recommend the adoption of the report of the Committee on Cancer Survey, and that the Committee be discharged with the thanks of the House.

We recommend the adoption of the report of the Committee on State Registration fee.

We recommend the adoption of the report of the Committee on Veterans' Legislation, and that the thanks of the House be extended to the Committee for its valuable work.

We recommend the adoption of the report of the Advisory Committee to the School of Medicine. We further recommend that the new Committee give due consideration to the report of the Committee on Public Policy regarding the State Medical Society and its teaching hospitals.

GERRIT HEUSINKVELD, Chairman,
GEORGE H. CURFMAN,
W. B. HARDESTY.

REPORT OF THE SECOND MEETING OF THE COMMITTEE ON REPORTS OF COMMITTEES

A transcript of the verbal report of the Committee on Public Policy at the meeting of the House of Delegates on Wednesday evening, September 7, 1932, was considered.

The first item of the report dealing with the state medical school was referred to the Advisory Committee to the School of Medicine.

We recommend that the New York Academy of Medicine proposal be referred to the House.

The last item awaits the action of the Public Policy Committee.

GERRIT HEUSINKVELD, Chairman,
GEORGE H. CURFMAN,
W. B. HARDESTY.

Dr. Sevier moved the adoption of the first part; motion seconded and carried. Dr. Halley moved the adoption of the second part; motion seconded and carried.

President Delehanty: "That second part of the report is now before the House: 'We recommend that the New York Academy of Medicine proposal be referred to the House.' What do you wish to do with this matter?"

Dr. Knuckey: "I think they should be taken up by sections and discussed."

A motion was made that this be done; seconded and carried.

President Delehanty: "Will you kindly read the sections, Mr. Secretary?"

Mr. Sethman: "Mr. President, the entire report covers sixteen pages. I take it that the recommendations are all that are necessary to read."

The sections were then read and acted upon as follows:

"Recommendations of the New York Academy of Medicine

"It is important that all organizations interested in the public health take immediate action by demanding a Congressional investigation, the object of which should be to disclose and correct the errors in operation of the numerous laws concerning veterans which have been enacted since the World war. No other procedure except a Congressional investigation sincerely and conscientiously carried out offers any hope of repealing the unjust laws, of curtailing unnecessary expenditures and of developing a coordinated program of veterans' relief for the future which will be fair to the ex-soldiers and also to the remaining 96 per cent of the population of the United States.

"At the present time the Committee on Public Health Relations of the New York Academy of Medicine, urges:

"1. That the hospitalization of veterans for non-service connected disabilities be discontinued, not alone because it it wasteful, but also because it is reprehensible class legislation and totally unfair to the rest of the population of the country."

Dr. Averill moved the adoption of the section; motion seconded and carried.

"2. That as the hospital beds become vacant, the unneeded hospitals be transferred or sold to the States for conversion into public institutions for mental diseases, tuberculosis and other chronic conditions and that they be available to the general public as well as ex-soldiers."

Dr. Knuckey: "I feel that is a very ambiguous recommendation and it could lead to a great deal of harm. I move that this section be eliminated."

The motion was seconded and carried.

"3. That an inquiry be made as to the adequacy of compensation granted to the widows and dependents of veterans who were killed or died in the war or who were killed or died as a direct result of the war."

Dr. Halley moved the adoption of the section; motion seconded and carried.

"4. That adequate compensation be continued for those veterans who were in fact diseased or disabled as a result of war service."

Dr. Halley moved the adoption of the section; motion seconded and carried.

"5. That no compensation be paid for partial disabilities to individuals who are not in need or whose earning capacity is materially unimpaired."

Dr. Blickensderfer moved the adoption of the section; motion seconded and carried.

"6. That expert medical advice rather than an arbitrary Congressional decree be allowed to decide whether medical conditions which developed after the war may have been caused or favored by military service be considered in arriving at a decision in specific instances."

Dr. Waggener moved the adoption of the section; motion seconded and carried.

"7. That the operation of the Emergency Officers' Retirement Act be studied and the Act revised to prevent existing abuses."

Dr. Liddle moved the adoption of the section; motion seconded and carried.

"8. That in the formulation of future plans for the medical care of ex-soldiers, Congress and the Bureau of Veterans' Affairs avail themselves more freely of the expert advice of the national medical organizations."

Dr. Sevier moved the adoption of the section; motion seconded and carried.

"9. That all amendments to the Federal civil service regulations which grant undue preference to ex-soldiers be rescinded because of the danger to the efficient conduct of the medical and public health services of the Government."

Dr. Fulwider moved rejection of the section. It was read again and Dr. Fulwider's motion seconded. Dr. Halley requested the Executive Secretary to read the section of the report explanatory of this recommendation. It was read as follows:

"The civil service system has virtually been scrapped in favor of the veteran. Although the preference is chiefly for disabled veterans, the disability may be of a minor nature and the man may have completely recovered from it. Even though he fails in the

examination and receives ten points below the passing mark, he is put at the head of the list. A veteran with no disability is placed on the list if he receives five points below the passing mark.

"There were twenty-seven disabled veterans on the list for post office clerk in Washington. The best rating obtained by any one of them was 258th on the eligible list. Six did not even receive a passing grade and yet all of them got the right to an appointment. For example, a veteran who earned a rating of 65 per cent, five below passing, was entitled to appointment before a non-service man who got 98 per cent.

"In some cases veterans who fail in competitive examinations are placed in positions vital to public health above men who turn in nearly perfect test papers and possess other qualifications. For example, in an examination for junior chemist, a disabled veteran got a mark of 69 per cent and would have failed if he had had no service record. Under the present ruling he went to the top of the list. His application was preferred above that of a man who made 97.5 per cent in the competitive examination.

"If this policy be continued, it will undoubtedly result not only in the complete breakdown of the Government services, but will seriously impair the efficiency of the health and medical services of the Government."

Dr. William M. Bane: "It seems to me that this recommendation as put forth is certainly just, and that investigation should be made; that undue favoritism should not be shown. Any motion to reject this section is, I think, more or less prejudiced. I am in favor of abiding by the recommendations of the Academy."

President Delehanty put the motion to reject the recommendation; motion was lost.

Dr. Yegge moved adoption of the section; seconded and carried.

The final recommendation was read, as follows:

"10. That the legislative proposals for increasing benefits for disease disability or death not connected with war service be opposed."

Dr. Waggener moved adoption of the section; seconded and carried.

President Delehanty: "Now I will entertain a motion to adopt the recommendations as amended."

The motion was made, seconded and carried.

Dr. Curfman: "I believe it would be in order to refer to Section 2 and ask Mr. Sethman to read the material from the New York Academy of Medicine which caused them to present section 2 of this report."

Mr. Sethman: "Mr. President, there seems to be no special section devoted to that subject in the general report."

President Delehanty: "If there is nothing further under this head, we will proceed to the order of unfinished business."

Dr. Yegge: "I think we should determine, after we have passed on this thing, how many men in this assembly are veterans. It will have more weight. I move that we determine how many members of this body are veterans of the war."

The motion was seconded and carried.

President Delehanty: "I ask the veterans in this House of Delegates to rise, while the Secretary counts them."

There were twenty veterans present.

President Delehanty: "Will those who are not veterans stand, please?"

There were seventeen who were not veterans.

There was no unfinished or new business on the Secretary's desk.

The meeting adjourned until 8 a. m. Friday, September 9th, 1932.

THIRD MEETING OF THE HOUSE OF DELEGATES

8:30 a. m. September 9, 1932

The meeting was called to order at 8:30 o'clock by the new President, Dr. Frank B. Stephenson, pursuant to adjournment.

The roll was called by the Executive Secretary and the President announced a quorum.

Mr. Sethman read the minutes of the previous meeting, which were approved as read.

President Stephenson: "Dr. Curfman, do you have a supplemental report to make for the Committee on Public Policy?"

Dr. Curfman: "I have a resolution, Mr. President."

Resolution

"'Whereas, Manufacturers of certain proprietary foods are using the results of experimental investigation to bolster their advertising through claims of extraordinary health value which are not founded on fact and, as a result, pernicious food fads have arisen; and

"'Whereas, Simple food products such as meats, dairy products, fruits, vegetables and cereals contain all the elements necessary for growth and body maintenance; now therefore be it

"'Resolved, That the House of Delegates of the Colorado State Medical Society desires in the public interest to place on record that no one food is a perfect food and that any variation from a normal diet consisting of the ordinary simple foods as above outlined should be prescribed only by a properly trained physician for a definite indication and never by the press or radio advertisements of proprietary food manufacturers.'"

Dr. Blickensderfer moved adoptaion of the resolution; seconded and carried.

President Stephenson called for unfinished business and recognized Dr. Halley.

Dr. Halley: "I move, Mr. President, that copies of the action taken by this House in reference to the recommendation concerning Veterans' Legislation by the New York Academy of Medicine, be sent to the New York Academy of Medicine and to our prospective Congressmen and Senators, and to any others who might be interested."

Dr. Halley's motion was seconded and carried.

Dr. Shivers, Alternate, asked that he be seated in place of Dr. Vanderhoof, El Paso, as the delegate, since Dr. Vanderhoof had had to leave the convention. Dr. Bortree so moved; seconded and carried.

The report of the Committee on Nominations was then called for.

Dr. Johnston read the report, in the absence of the Chairman, as follows:

REPORT OF THE COMMITTEE ON NOMINATIONS

Your Committee on Nominations presents the following as its choices for positions to be filled at this session:

For President: Gerald B. Webb, Colorado Springs.

For First Vice President: Walter W. King, Denver.

For Second Vice President: Lawrence L. Hick, Delta.

For Third Vice President: B. Franklin Blotz, Rocky Ford.

For Fourth Vice President: William P. Gasser, Loveland.

For Treasurer: Leo W. Bortree, Colorado Springs.

For Councillor of the Fifth District: A. L. Burnett, Durango.

For Delegate to the American Medical Association: John W. Amesse, Denver.

For Alternate-delegate to the American Medical Association: Arthur J. Markley, Denver.

For Member of the Committee on Publication: William H. Crisp, Denver.

For the place of the next Annual Session: Colorado Springs.

For the time of the next Annual Session: September, 1933, the exact dates to be chosen by the Committee on Scientific Work and the Secretary.

Respectfully submitted,

Z. H. McCLANAHAN, Chairman,
WM. H. HALLEY,
R. S. JOHNSTON,
JAMES G. ESPEY,
O. P. SHIPPEY.

The report was accepted and placed on file.

The business of the morning being finished, a motion to adjourn was made, seconded and carried, and the meeting adjourned until 8:00 Saturday morning, September 10.

FOURTH MEETING OF THE HOUSE OF DELEGATES

8:45 a. m., September 10, 1932

The meeting was called to order at 8:45 o'clock by President Stephenson.

The Executive Secretary called the roll and announced a quorum.

Dr. Darling, alternate for Dr. Burnett of the San Juan Medical Society, was seated as a delegate, upon motion made, seconded and carried.

Dr. Bortree moved that reading of minutes of the previous meeting be dispensed with; motion seconded and carried.

The President requested the Executive Secretary to re-read the report of the Nominating Committee. This was done. There were no further nominations. Election of officers then took place. Officers were elected as per the report of the committee, (as found on pages 489-490), there being in the case of each officer nominated, a motion made, seconded and carried to close nominations and instruct the Secretary to cast the unanimous ballot of the House of Delegates of the Colorado State Medical Society for the nominee designated.

Motion was made to adopt the recommendation of Colorado Springs for the 1933 Annual Session; seconded and carried.

The House gave unanimous consent to have the exact dates of the 1933 meeting set by the Committee on Scientific Work and the Secretary.

The President called for unfinished business.

Mr. Sethman: "Under 'unfinished business,' Mr. President, the Secretary will formally lay on the desk for action at the next annual session, amendments to two articles of the Constitution, as directed by Reference Committees of this House."

The proposed amendments follow:

"Amend Article VIII entitled 'Officers,' Section 1, by striking the word 'five' in the last line of said section and inserting in lieu thereof the word 'nine.'

"Amend Section 2 of the said Article VIII by striking the word 'five' in the fourth line of said section and inserting in lieu thereof the word 'three.'

"Amend Article V entitled 'House of Delegates,' by inserting after the word 'societies' in the fourth line of said Article the words 'and by the Past Presidents.'"

Mr. Sethman: "That last amendment will make it possible to have the Past Presidents represented in the House of Delegates.

"On the instructions of the Reference Committee which considered the proposed amendment, the Secretary contacted as many delegates as possible. It seemed to be their opinion that the representative character of the House of Delegates might be impaired if all Past Presidents were made voting members of the House of Delegates. It seemed to be the consensus that the way to bring about the desired result without impairing the representative character of the House was to write the amendment with the word 'by.' In other words, not all Past Presidents would become members of the House of Delegates, but the House would include delegates elected by the Past Presidents.

"If this amendment is adopted at the next session, a new section can be inserted in the by-laws creating a Society of Past Presidents which can elect one, three or five of its members to the House of Delegates, according to how many the new By-Laws permits."

President Stephenson: "These two proposals for amendment of the Constitution will lay over for action at the next annual session.

"No new business can be taken up at this meeting except by a two-thirds vote of the Society. Is there any new business proposed?"

Dr. Conyers: "I think it would be a good thing to amend the by-laws so that any alternate could represent any delegate from his respective Society in case of the absence of any of the regularly appointed delegates. I think it is easier to get a quorum."

Dr. Bortree: "I rather object to that because these by-laws were re-written after a very hectic session at Glenwood Springs some years ago. I think it is very bad policy and I fear if Dr. Conyers' suggestion were carried out we'd get into a very bad jam some time."

President Stephenson: "The question cannot be brought up at this time with any satisfaction, but it can be done at the next annual session with as much expedition as if we did it now."

There was no other new business, and no special announcements were to be made. There being no further business, a motion to adjourn was made by Dr. Bortree. Motion was seconded and carried and the House adjourned sine die.

PROCEEDINGS OF THE GENERAL MEETINGS*

9 a. m., September 8, 1932

President Edward Delehanty: "The members of the Colorado State Medical Society will now come to order for the Sixty-second Annual Session.

"The first order of business is the installation of the new President.

"We are very fortunate in that we have with us at the meeting six past Presidents: Dr. Leonard Freeman, Dr. Edward Jackson, Dr. F. R. Spencer, Dr. Melville Black, Dr. George A. Boyd, and Dr. George Curfman. I will request those of the past Presidents who are here to escort the new President to the Chair.

"It gives me great pleasure, gentlemen, to introduce to you Dr. Frank B. Stephenson, President for the coming year."

President Stephenson: "It is unnecessary for me to say anything in the way of expressing my appreciation of this honor other than what I have already said a number of times. All of you know, I'm sure, that my appreciation is heartfelt and deep.

"The first paper of this meeting is entitled "Recent Progress in Medicine," by Dr. Maurice Rees, Dean of the University of Colorado School of Medicine and Hospitals."

The paper was read by the essayist.

Papers were continued in the following order:

"The Causes of Changed Mortality Rates," read by the author, John B. Crouch, M.D., Colorado Springs.

"Undulant Fever in Colorado," read by F. Julian Maier, M.D., joint author with Paul Connor, M.D., Denver.

"A Five Year Study of Epidemic Meningitis in Denver," read by the author, B. B. Jaffa, M.D., Denver.

President Stephenson: "The presence of the next speaker is sponsored by the Colorado Neurological Society. I am going to ask the president of that Society, Dr. George Johnson, to escort Dr. Weisenburg to the platform and introduce him."

Dr. Johnson: "Just as the wandering Bedouins looked toward Mecca for their spiritual guidance, those wanderers in the field of American neurology have looked toward Philadelphia for their scientific leadership. This is not without cause, for the establishment of the first hospital for mental and nervous diseases in 1732 was the establishment of a leadership which has continued uninterruptedly since that time.

"Colorado has a direct obligation in addition to the indirect influence which the contributions from Philadelphia have made to the field of neurology, in the leadership which has come from Philadelphia and manifested itself in the early organization of the field of neurology in Colorado through Dr. Work, Dr. Eskridge and Dr. Pershing, who came directly from that center.

"With this as a precedent, the Colorado Neurological Society is happy to present to this Society a leader from that center; and it gives me great pleasure to present Dr. Theodore Weisenburg, Professor of Neurology at the Graduate Medical School of the University of Pennsylvania and Editor-in-Chief of the Archives of Neurology and Psychiatry."

Dr. Weisenburg then gave an address entitled "A Discussion of Recent Advances in the Commoner Nervous Diseases," and it was briefly discussed by Dr. Philip Work, Denver.

A thirty-minute intermission followed.

After the intermission, the scientific program was resumed as follows:

"The Schilling Blood Count," by Royal H. Finney, M.D., and Josephine N. Dunlop, M.D., Pueblo.

"Relation of Surgeon and Insurance Carrier under the Workmen's Compensation Act," by W. R. Waggener, M.D., Denver.

The session thereupon adjourned until 2 p. m.

---

2 p. m., September 8, 1932

First Vice President Goodson called the meeting to order and read a telegram of greeting from Robert L. Parker, M.D., Des Moines, Secretary of the Iowa State Medical Society.

Chairman Goodson: "According to the By-Laws of the Colorado State Medical Society, the President is duty bound to give an address before the annual meeting. This is the outstanding event of this meeting, and we are gathered here at this time to do honor to our President.

"I do not know the subject of his address, but I do know that he sees into things and through things with marked precision, and I am sure that his address will be illuminating.

"I have the pleasure of presenting Dr. Frank B. Stephenson, our President."

President Stephenson: "I am going to talk about some of the duties of the profession this afternoon. This one of giving an address is one of them, as Dr. Goodson has told you. I have undertaken it as such.

"On account of my past connection with the Society in an executive capacity, I could not refrain at this time from taking up a subject that I felt was of practical importance to the Society. At the same time the address is critical, and I am not sure that I am right in everything I say. Some of the ideas I express are my own; many others are ideas of other people. I am responsible for my own ideas and what I have to say will not commit the Society in any way."

The Presidential Address, "Public Health and the Medical Profession," by Frank B. Stephenson, M.D., Denver, was then delivered.

The scientific program then continued as follows:

"The Health Examinations in Schools," by Edward Jackson, M.D., Denver.

Chairman Goodson: "Dr. Thomas D. Wood, a pioneer in health work at Columbia University and now an Emeritus Professor, is Chairman of the Joint Committee on Health Problems of the National Education Association and the American Medical Association.

"It was Dr. Wood's desire to discuss this paper by Dr. Jackson. He spends his summers in Estes Park. Unfortunately he had to leave before the time of our meeting, but he has written out a discussion of this paper and I will ask Dr. O'Rourke if he will read the discussion."

Dr. O'Rourke read the discussion, and Dr. Jackson spoke in closing.

"Iritis; Its Cause, Management and Treatment," by C. E. Sidwell, M.D., Longmont.

"On the Management of Ocular Injuries," by William C. Finnoff, M.D., Denver.

---

*Addresses, papers, and discussions which formed the scientific proceedings of the General Meetings and which have not been published in this or in the November or October, 1932, issues, will be published in succeeding issues of Colorado Medicine.

Dr. Finnoff opened discussion on Dr. Sidwell's paper, upon request of the latter. Others discussing the two papers were Drs. Melville Black, Denver, and Frank Carroll, Fort Collins. Dr. Sidwell and Dr. Finnoff closed discussion.

"The Treatment of Burns," by N. A. Madler, M.D., of Greeley. Read by the author and discussed by Doctors Leonard Freeman, Denver; Thad P. Sears, Denver; and by Dr. Madler in closing.

"The Clinical Care of Coronary Disease," read by the author, L. W. Bortree, M.D., Colorado Springs.

Dr. N. A. Madler, Greeley: "After the program had been completed, it was ascertained that we would have the pleasure of having with us today Dr. C. W. Green, Professor of Physiology at the University of Missouri, who has done a great deal of experimental work in diseases of the coronary arteries.

"Dr. Green has offered to discuss this paper. In order to give him plenty of time, I move that the usual order of allowing the speaker only five minutes be dispensed with and that he be given ten or fifteen minutes for this discussion."

Motion was seconded and carried.

Following Dr. Green's discussion, the paper was further discussed by Drs. C. N. Meader, Denver; James C. Munch, Washington, D. C., and by Dr. Bortree in closing.

"Mechanism of Edema," read by the author, Thad P. Sears, M.D., Denver, and discussed by Doctors C. N. Meader, Denver; E. R. Mugrage, Denver; R. W. Arndt, Denver; R. M. Fulwider, Fort Lyon, and by the author, in closing.

The session thereupon adjourned until 8:00 p. m.

---

8 p. m., September 8, 1932

The session was called to order by President Stephenson at eight o'clock.

President Stephenson: "This meeting tonight was devised with the idea of its being a sort of free-for-all. Every one who is here is privileged to join in the discussion which will follow the papers.

"We chose Dr. C. E. Cooper of Denver to start off the fireworks this evening. He will now deliver his paper."

Dr. Cooper read his paper entitled: "Doctor, Patient and State."

This was followed by a paper by Mr. Harvey T. Sethman, Executive Secretary, entitled: "Economic Do's and Don't's for the Medical Society."

Discussion was offered by Drs. W. B. Yegge, Denver; Thad P. Sears, Denver; F. W. Kenney, Denver; Rudolph Arndt, Denver; Robert Levy, Denver; Edward Jackson, Denver, Maurice Rees, Denver; Thad C. Brown, Fort Collins; C. O. Giese, Colorado Springs; T. R. Love, Denver; R. H. Finney, Pueblo, and by Dr. Cooper, in closing.

The meeting thereupon adjourned until 9 o'clock Thursday morning.

9:20 a. m., September 9, 1932

President Stephenson called the meeting to order and the scientific program was carried out as follows:

"Spastic Colitis," read by the author, L. L. Hick, M.D., Delta.

"The Association of Eczema With Alteration in Gastric Secretions," read by the author, O. S. Philpott, M.D., Denver.

President Stephenson next called upon Dr. F. P. Gengenbach, representing the Rocky Mountain Pediatric Society, who introduced Dr. Isaac A. Abt, Professor of Pediatrics at the Northwestern University School of Medicine, Evanston, Ill., as the guest of the Pediatric Society.

"Pneumonia in Childhood," read by the guest essayist, Isaac A. Abt, M.D., Chicago. The paper was not opened to discussion.

An intermission of thirty minutes was taken, after which the program was resumed as follows:

"Sinus X-ray With Lipiodol," by C. E. Earnest, M.D., Pueblo.

"Pharyngo-maxillary Abscess," by Frank E. Palmer, M.D., Sterling.

"The Medical Treatment of the Accessory Sinus," by F. J. Peirce, M.D., and F. H. Prior, M.D., Pueblo, read by Dr. Prior.

"Progress in Otolaryngology," by Robert Levy, M.D., Denver.

The above four papers were discussed by Drs. Frank R. Spencer, Boulder; J. J. Pattee, Pueblo; Harry L. Whitaker, Denver; Thomas E. Carmody, Denver; C. H. Darrow, Denver; C. E. Cooper, Denver; R. H. Finney, Pueblo; K. D. A. Allen, Denver; Edward H. Cary, Dallas, Texas, and by Dr. Earnest and Dr. Levy, in closing.

The meeting thereupon adjourned until 2 p. m.

2:30 p. m., September 9, 1932

President Stephenson called the meeting to order and the scientific program was carried out as follows:

President Stephenson: "The first speaker on the program is a guest from out of the state and is brought here by the Denver Radiological Club. I am going to ask the President of that Club, Dr. Crosby, to introduce the speaker."

Dr. Leonard G. Crosby: "Mr. President, if this were a radiological society there would be no need of any introduction.

"Dr. Edward H. Skinner is not a stranger to this Society. He has been our guest before. I am sure you are all going to enjoy what he has to say as much as if it were a radiological society.

"Dr. Skinner is noted for certain qualities that are at least entertaining and oftentimes amusing. Whether we will be blessed with much of that today, I do not know. All I know is what I deduce from the program. But I am sure that you will all be interested and instructed by what Dr. Skinner has to say and I take pleasure in introducing him at this time."

Dr. Skinner then read a paper entitled: "The Relation of Roentgenology to Other Fields of Medical Practice." The paper was not opened to discussion.

"Pneumoperitoneum in Treatment of Tuberculous Peritonitis," read by the author, O. M. Gilbert, M.D., Boulder; and discussed by Drs. Gerald Webb, Colorado Springs, and I. D. Bronfin, Denver.

"Rest and Shot-Bags in Pulmonary Tuberculosis," read by the author, Gerald B. Webb, M.D., Colorado Springs, and discussed by Drs. C. O. Giese, Colorado Springs; Leonard Freeman, Denver; I. D. Bronfin, Denver, and W. B. Yegge, Denver.

"A Demonstration of Normal and Pathological Nephroptosis," read by the author, Harry Wear, M.D., Denver, and discussed by Drs. John B. Davis, Denver; O. S. Fowler, Denver, and by Dr. Wear, in closing.

"General Principles in the Radiation Therapy of Tumors," read by the author, W. W. Wasson, M.D., Denver, and discussed by Drs. T. Leon Howard, Denver; K. D. A. Allen, Denver; F. R. Spencer, Boulder; Frank B. Stephenson, Denver, and by the author, in closing.

The meeting thereupon adjourned until 7 o'clock when the banquet was to be held at which Dr. Edward H. Cary, President of the American Medical Association, was to be the principal speaker.

9:15 a. m., September 10, 1932

President Stephenson called the meeting to order and asked the Executive Secretary to present a summary of the proceedings of the House of Delegates and to announce the new officers elected for the current year. This Mr. Sethman did.

The report of the Committee on Necrology and the introduction of newly-elected officers were postponed until later in the proceedings.

The scientific program was then carried out as follows:

"Complications in the Treatment of Congenital Hip Dislocation," read by Robert Packard, M.D., Denver, joint author with Hamilton Barnard, M.D., Denver.

"Corrective Treatment of Compression Fractures of the Vertebrae (Moving Picture Demonstration and Case Reports)," by Atha Thomas, M.D., and Charles Sevier, M.D., Denver.

At this time President Stephenson called upon Dr. S. D. Van Meter to read the report of the Committee on Necrology, as follows:

REPORT OF THE COMMITTTEE ON NECROLOGY

Mr. President and Gentlemen:

"For some we loved, the loveliest and the best
That from his Vintage rolling Time hath prest,
Have drunk their Cup a Round or two before,
And one by one crept silently to rest."

Your committee desires to request the Delegates to rise during the reading of the names of those of our brethren who have answered the call of the Great Physician, since our last meeting.

For them life has been changed, not taken away, and what better can we do than voice the prayer of the Church, that has transcended the ages? "Eternal rest grant unto them O Lord, and may perpetual light shine upon them!"

Frederick E. Becker, Denver, Jan. 8, 1932.
Robert E. Blackerby, Tollerburg, Feb. 5, 1932.
Frank J. Blackmer, Steamboat Springs, Dec. 2, 1931.
Eugene H. Brown, Pueblo, Jan. 24, 1932.
Frost C. Buchtel, Denver, May 30, 1932.
James F. Burgin, Delta, Nov. 27, 1931.
E. C. Bennett, Hermosa Beach, Calif., July 17, 1932.
Herbert E. Colby, La Junta, June 9, 1932.
Joseph P. Craney, Denver, April 9, 1932.
Allen C. Davis, Lamar, Aug. 23, 1931.
Willis P. Dooley, Akron, March 9, 1932.
H. G. Emery, Denver, Feb. 24, 1932.
E. E. Evans, Fort Morgan, March 24, 1932.
Grayson C. Gardner, La Junta, Jan. 20, 1932.
Charles A. Graham, Denver, Oct. 22, 1931.
Burton B. Grover, Colorado Springs, July 23, 1932.
Merritt B. Hook, Denver, April 12, 1932.
Frederick A. Jackson, Salida, Jan. 25, 1932.
William A. Kickland, Fort Collins, July 7, 1932.
Fred E. McKeeby, Olney Springs, Nov. 12, 1931.
Lewis H. McKinnie, Colorado Springs, Nov. 2, 1931.
George A. Moleen, Denver, June 22, 1932.
C. A. Newland, Springfield, Sept. 30, 1931.
Allen J. Nossaman, Pagosa Springs, Oct. 9, 1931.
Joseph W. Pecony, Denver, April 7, 1932.
George P. Pipkin, Pueblo, Jan. 27, 1932.
W. J. Rothwell, Utah, Feb. 4, 1932.
E. M. Sherman, Holly, June 15, 1932.
Will Howard Swan, Colorado Springs, Sept. 5, 1932.
Herbert C. Turrell, Durango, Jan. 11, 1932.
Arthur R. Williamson, Pueblo, Jan. 7, 1932.
Roy E. Wolfe, Rocky Ford, July 4, 1932.

COMMITTEE ON NECROLOGY,
By JOHN FRANCIS McCONNELL,
Chairman.

President Stephenson then called upon Dr. Henry W. Wilcox, President of the Rocky Mountain Orthopedic Club, who introduced Dr. Frank D. Dickson of Kansas City, Mo., guest speaker sponsored by the Orthopedic Club. Dr. Dickson then delivered his paper, entitled "Low Back Injuries With Particular Reference to the Part Played by Congenital Abnormalities."

"Some Clinical Aspects of Breast Tumors," read by the author, Ella A. Mead, M.D., Greeley.

"Cholecystectomy and Its Surgical Pathology," read by the author, C. W. Maynard, M.D., Pueblo.

"Surgery of the Upper Abdomen, With Special Reference to Diagnosis and Treatment," read by the author, Louis V. Sams, M.D., Denver.

The meeting thereupon adjourned until 2 p. m.

2 p. m., September 10, 1932

President Stephenson called the meeting to order and the scientific program proceeded as follows:

"The Obliterating Appendix as a Cause of Disturbances Connected With Abdominal Nerves and Lymphatics," read by the author, Leonard Freeman, M.D., Denver, and discussed by Drs. P. J. McHugh, Fort Collins, and Frank B. Stephenson, Denver.

"Factors Affecting the Mortality in Acute Appendicitis," read by the author, George B. Packard, M.D., Denver.

"Cystic Degeneration of the Appendix; Report of Three Cases," read by the author, L. E. Likes, M.D., Lamar.

The two papers were discussed by Drs. Leonard Freeman, Denver; O. M. Gilbert, Boulder; Edwin W. Knowles, Greeley; Morris J. Baskin, Denver; O. S. Fowler, Denver, and by Dr. Likes, in closing.

"Obstetrics From the Standpoint of the General Practitioner," read by the author, C. T. Knuckey, M.D., Lamar.

"Uterine Hemorrhage," read by William H. Halley, M.D., Denver, joint author with P. W. Whiteley, M.D., Denver.

"Local Anesthesia in Thyroid Surgery," read by the author, Virginia C. Van Meter, M.D., Denver.

"Means and Methods of Goiter Prophylaxis," read by the author, Marcus O. Shivers, M.D., Colorado Springs.

The two papers were discussed by Drs. Arnold Minnig, Denver; O. S. Fowler, Denver; S. D. Van Meter, Denver, and by Dr. Shivers, in closing.

President Stephenson: "We will now officially adjourn the 1932 session of the Colorado State Medical Society."

ADJOURNMENT.

Registration Statistics

Members, 294; Guests, 7; Visitors, 39; Exhibitors, 34; Total, 374 (These figures exclusive of Woman's Auxiliary and women visitors not doctors).

The foregoing minutes of the House of Delegates and the General Meetings are hereby respectfully submitted to the Society.

HARVEY T. SETHMAN,
Executive Secretary.

INDEX TO THE PROCEEDINGS OF THE HOUSE OF DELEGATES

Advisory Committee to the School of Medicine, adoption of committee's report 488
Advisory Committee to the School of Medicine, instructions to committee 488
Advisory Committee to the School of Medicine, report of 484
Alternates to represent any delegate, proposal of by-law amendment 490
Assets, location of 475
Audits and Appropriations, report of committee on 486
Books purchased and received by library committee 480
Budget, adoption of 486
Budget, discussed in brief 472
Budget for 1932-1933 472
By-laws of county societies, recommendations concerning 472
Cancer Survey, adoption of committee's report 487
Cancer Survey, discharge of committee 487
Cancer survey, report of committee on 483
Certified public accountant, report of 473
Clinics, Postgraduate, recommendation of 483
Colorado General Hospital, complaints against 477
Colorado Springs chosen for 1933 session 490
Constitutional amendments proposed 490
Constitutional amendments, recommendation of 472, 487
Constitutional Secretary, adoption of report of 487
Constitutional Secretary, report of 470
Cooperation with Allied Professions, adoption of committee's report 487
Cooperation with Allied Professions, report of committee on 481
Councillor districts, constitutional amendment to increase number of, proposed 490
Councillor districts, recommendation for increase of 472, 487
Councillors, adoption of report of 487
Councillors, report of board of 470
Credentials, amendments to report of committee on 469, 486, 490
Credentials, report of committee on 468
Delegates to the American Medical Association, adoption of report of 487
Delegates to American Medical Association, report of 475
Election of officers 490
Executive Secretary, adoption of report of 487
Executive Secretary, report of 470
Extension courses, summary of results of questionnaire 482, 483
Financial policy, recommendations regarding 472, 487
Financial statement of secretary 473
Funds, status of 474
Foods, resolution concerning 489
Handbook, description of 468
Hospitals, report of committee on 479
Industrial Commission Fees, adoption of committee's report 487
Industrial Commission Fees, report of committee on 483
Library and Medical Literature, adoption of committee's report with reservations 487
Library Committee, letter to House of Delegates 475
Library and Medical Literature, report of committee on 480
Malpractice, discussion of 470
Medical Defense, adoption of committee's report 487
Medical Defense, report of committee on 478
Medical Defense, supplemental report 479
Medical Economics, report of committee on 482
Medical Economics, tabling of committee's report 487
Medical Education and Hospitals, adoption of committee's report 487
Medical Education and Hospitals, report of committee on 479
Medical Extension, amendment and adoption of committee's report 487
Medical Extension, report of committee on 482
Medicolegal Digest, discussion of 471, 478
Membership, analysis of changes in 473
Membership, annual report of 473
Membership, general status of 471
Minutes, approval of 1931 469
Mutual benefit associations, discussion of 476
Necrology, report of committee on 493
New York Academy of Medicine, adoption of proposals 488, 489
New York Academy of Medicine, discussion of proposals 478, 489
New York Academy of Medicine, recommendation of 488
Nominations, election of committee on 484
Nominations, report of committee on 489
Officers, election of 490
Past Presidents, constitutional amendment to provide representation of, in House of Delegates proposed 490
Past Presidents, discussion of status of 472, 487
Past Presidents' Society, proposal of 490
Public Policy, adoption of committee's report 487
Public Policy, adoption of supplemental report of special meeting 488
Public Policy, report of committee on 476
Public Policy, supplemental report of special meeting 477
Publication, adoption of committee's report 487
Publication, report of committee on 478
Reference committees, appointment of 469
Registration statistics 493
Reports of Committees, report of committee on 487
Reports of Officers, report of committee on 487
Resolution on food fads 489
Scientific Work, adoption of committee's report 487
Scientific Work, report of committee on 475
Secretaries of county societies, discussion of 472
State Registration Fee, adoption of committee's report 488
State Registration Fee, report of committee on 483
Telegrams of greeting 486
Treasurer, adoption of report of 487
Treasurer, report of 474
Treasurer, vote of thanks to 475
Trustees, report of board of 469
Veterans' Legislation, adoption of committee's report 488
Veterans' Legislation, creation of special committee 469
Veterans' Legislation, discussion of committee's report 486
Veterans' Legislation, letter of protest to committee 485
Veterans' Legislation, report of committee on 484
Veterans' Legislation, supplemental report of committee on 484
Veterans, number of in House 489

MEDICAL SOCIETIES

ARKANSAS VALLEY MEDICAL ASSOCIATION

The fall meeting of the Arkansas Valley Medical Association was held at the Harvey House in La Junta on Saturday, November 5.

Dr. O. D. Groshart, president of the Otero County Medical Society, which was host to the Association, called the meeting to order, since the president, Dr. R. C. Cook of Fort Lyon, had been transferred out of the state by the Veterans' Bureau, and the Vice President, Dr. R. E. Wolfe of Rocky Ford, died some months previously. Dr. Groshart was elected president to fill the unexpired term.

Scientific sessions were held throughout the day, followed by a banquet and dance for all members, guests, and their ladies. A number of general scientific, x-ray, and commercial exhibits added to the variety of the session. The ladies were entertained throughout the day by the Woman's Auxiliary of the Otero County Society.

Dr. Arthur E. Hertzler of Halstead, Kan., was the invited guest of the meeting and spoke at the afternoon session on "The Present Status of Knowledge Regarding Thyroid Disease and Its Treatment, with Special Reference to the Viewpoint of the General Practitioner."

Other papers on the program were "Spinal Anesthesia," by Dr. Thomas J. Cooper of La Junta; "Sinus Diagnosis, Illistrated with the Aid of X-ray Films," by Dr. C. E. Earnest of Pueblo; "Embryonal Carcinoma of the Testicle, Illustrated," by Dr. Lanning E. Likes of Lamar; "Mental Deficiency in Children," by Dr. John A. Schoonover of Denver; "A Review of the Poliomyelitis Situation in Otero County for the Past Five Years, with Demonstration of Ten Cases," by Dr. G. E. Calonge of La Junta, and "Recent Development in the Management of Diseases of the Hematopoietic System," by Dr. K. D. A. Allen of Denver.

* * *

BOULDER COUNTY

The regular monthly meeting of the Boulder County Medical Society was held at the Boulderado Hotel, November 10, preceeded by a dinner. Dr. Claude E. Cooper of Denver was guest speaker. Dr. Cooper gave a talk on "The Doctor, Patient and State."

M. L. JOHNSON, Secretary.

* * *

FREMONT COUNTY

A moving picture "Cancer of the Skin," from the American Journal of Cancer in New York, was shown at the November 24 meeting of the Fremont County Medical Society held in Canon City.

ARCHIE BEE, Secretary.

* * *

LARIMER COUNTY

Dr. John Andrew of Longmont was the principal speaker at the regular meeting of the Larimer County Medical Society held November 2 at the Lovelander Hotel, Loveland. Dr. Andrew spoke on "Heart Disease."

C. E. HONSTEIN, Secretary.

* * *

MESA COUNTY

Drs. C. W. Reed and J. E. Ford of Grand Junction were the principal speakers at the October 18 meeting of the Mesa County Medical Society held at the LaCourt Hotel. Dr. Reed spoke on "Recent Advances in Therapeutics" and Dr. Ford on "Cardiac Tragedy."

V. T. DEWAR, Secretary.

* * *

NORTHWESTERN COLORADO

The regular meeting of the Northwestern Colorado Medical Society was held October 27 at the Billings Hotel, Oak Creek. Dr. A. C. Sudan who was a delegate, gave a report of the Estes Park Annual Meeting. Dr. Frank B. Stephenson, President and Mr. Harvey T. Sethman, Executive Secretary, were guests. Mr. Sethman was the principal speaker of the evening, talking on the work of the Public Policy Committee and the Political Campaign. The wives of the doctors were present at the dinner and held a special meeting later in the evening.

DUANE TURNER, Secretary.

* * *

PUEBLO COUNTY

The Pueblo County Medical Society held its first regular meeting November 1, at the Hotel Congress. The Scientific program consisted of a paper by Dr. J. D. Geissinger on "Asphyxia Neonatorum."

The second regular meeting of the Pueblo County Medical Society was held Tuesday, November 15, at the Hotel Congress. Dr. J. S. Norman was the principal speaker of the evening presenting a paper on "Traumatic Surgery of the Extremities," accompanied by moving pictures.

L. L. WARD, Secretary.

COLORADO OPHTHALMOLOGICAL SOCIETY

October 15, 1932

DR. E. M. MARBOURG, PRESIDING

Dr. E. R. Neeper presented a case of corneal scars from chicken-pox in which vitreous floaters were marked. Dr. E. R. Neeper also presented a case of senile cataract in an old colored lady.

Dr. G. H. Stine presented a case of Groenouw's degeneration of the cornea, a case of a cataract and questionable siderosis, and a case of a conjunctival and episcleral giant cell tumor.

Dr. R. W. Danielson presented a case of old uveitis, macular degeneration, and chiasmal arachnoiditis.

Dr. E. R. Neeper reported a case of a pterygium with several imbedded cilia.

R. W. DANIELSON, Secretary.

"CANCER SPECIALIST" CONVICTED

John Lindgren, a farmer residing near Golden who has been posing as a cancer specialist for a number of years, was brought to trial in the District Court of Jefferson County late in November on a complaint of the State Board of Medical Examiners on the charge of practicing medicine without a license. The evidence showed that he had collected $150.00 from one John Walma for two applications of salve to a sore on Walma's lip and, after a few days, had removed a "cancer, roots and all." Lindgren's defense was that he had not prescribed the medicine but Walma asked for it on the recommendation of other users; that he sold the medicine to Walma for the agreed price and the application of it to the lip was a

gratuitous service rendered upon request after the business transaction was closed. The jury refused to accept this explanation and found Lindgren guilty. Time was allowed for a motion for a new trial.

COLORADO NEWS NOTES

Colorado Medicine would like to see its column of personal News Notes expand into a page or more. Send in the items you would like to have your friends in other parts of the state read. Notes from Denver usually are in the majority, simply because members in other cities fail to send in their items. Notes for this column should reach the office of Colorado Medicine by the 20th of each month, for inclusion in the next month's issue.

* * *

COLORADO SPRINGS—Dr. W. A. Campbell, Jr., and Dr. E. L. Timmons of Colorado Springs were admitted to membership in the American College of Surgeons at the meeting held in St. Louis, October 17 to 21.

DENVER—A corrected list of Fellows admitted to membership in the American College of Surgeons at its annual meeting in St. Louis, October 17 to 21, received after our November issue went to press, contains the following names: Doctors Morris Weiner, Robert M. Shea, Louis V. Sams, Duval Prey, George B. Kent, Edward L. Harvey and T. E. Beyer.

DENVER—Major General Robert U. Patterson, Surgeon General of the United States Army, spent several days in Denver during November, inspecting Fitzsimons Hospital and making tentative plans for the construction of permanent buildings to replace the hastily built, war time units of that institution.

DENVER—In the recent general election, Dr. M. D. Currigan of Denver was chosen for Regent of the State University.

DENVER—Dr. Edward Delehanty has been promoted to the chair of Neurology, Medical Department, Colorado University, occupied for many years by the late Dr. George A. Moleen.

DENVER—Dr. Casper F. Hegner has been selected one of the Board of District Governors of the American College of Surgeons.

DENVER—Dr. Douglas W. Macomber and Mr. Harvey T. Sethman attended the Annual Conference of Secretaries of Constitutent State Medical Associations, held in Chicago, November 18 and 19.

LA JUNTA—Dr. Ralph S. Johnston of La Junta was admitted to membership in the American College of Surgeons, at the meeting held in St. Louis, October 17 to 21.

OAK CREEK—Dr. James H. Cole of Oak Creek visited Denver on professional business November 14.

SALIDA—Dr. C. Rex Fuller of Salida was admitted to membership in the American College of Surgeons at the meeting held in St. Louis October 17 to 21.

Take this Journal home to your wife

WOMAN'S AUXILIARY

NATIONAL PRESIDENT OF THE AUXILIARY DIES

The grievous word of the death of Mrs. Walter Jackson Freeman, president of the Woman's Auxiliary to the American Medical Association, was received October 27. Mrs. Freeman died in the Orthopedic Hospital in Philadelphia after an illness of three weeks. Funeral services were held in Holy Trinity Church in that city Saturday, October 29.

The daughter of a physician, the widow of a physician, and the mother of two physicians, the life and interests of Mrs. Freeman were peculiarly closely allied to the medical profession. Her father was Dr. W. W. Keen, called "the grand old man of the medical profession." Her husband, who died in December, 1920, was professor emeritus of laryngology at the Philadelphia Polytechnic Post Graduate School.

Mrs. Freeman was unanimously elected head of the Woman's Auxiliary in June, 1931. A student of colonial history and art, she was intimately acquainted with art museums and their exhibits in all parts of the world. Five sons and two daughters survive.

The Woman's Auxiliary to the American Medical Association has lost an inspiring and able leader, the medical profession an understanding and devoted friend.

NEWS OF COUNTIES

The Mesa County Auxiliary has fourteen members. Meetings are held on the third Tuesday of the month.

The San Juan Basin Woman's Medical Auxiliary meets on the second Wednesday of January, March, May, July, September, and November. There are thirteen paid up members. Due to the fact that their membership is widely scattered, for the present they must remain a purely social organization. A postponed meeting was held in Durango on September 24. Although as an organization, they do not do any health, educational or philanthropic work, each member assists individually in her own town with any activity of this kind which may be in progress.

The Weld County Auxiliary meets in September, November, February, and May. They have twenty-one paid up members. Their plans are social and educational. Auxiliary members take their turn in introducing the doctor who is to give the lecture on the educational program over the radio. This Auxiliary decided at the September meeting to belong to the Needlework Guild, each member bringing two new garments to the November meeting.

Pueblo holds three meetings a year which are usually luncheon meetings. They have thirty-seven members. Pueblo also belongs to the Needlework Guild and plans to do more work than last year because of the greater demand.

The Denver County Auxiliary's November meeting consisted of a card party to raise the annual funds for the student loan fund. This card party is usually held in February, but feeling that the money is needed much earlier this year, it was voted to hold it in November.

Colorado State Medical Society Officers, 1932-1933

President: Frank B. Stephenson, Denver.

President-elect: Gerald B. Webb, Colorado Springs.

Vice Presidents: First, Walter W. King, Denver; Second, Lawrence L. Hick, Delta; Third, B. Franklin Blotz, Rocky Ford; Fourth, William P. Gasser, Loveland.

Constitutional Secretary: Lorenz W. Frank, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 656-658 Metropolitan Bldg., Denver. Telephone KEystone 0870.

Delegates to American Medical Association: Senior, Crum Epler, Pueblo; Alternate, J. N. Hall, Denver; Junior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver.

Councillors:

		Term Expires
District No. 1	Ella A. Mead, Greeley	1935
District No. 2	G. P. Lingenfelter, Denver	1934
District No. 3	George D. Andrews, Walsenburg (Chairman)	1933
District No. 4	W. W. Crook, Glenwood Springs	1936
District No. 5	A. L. Burnett, Durango	1937

Standing Committees, 1932-1933

Credentials: Lorenz W. Frank, Denver, Chairman; W. A. Campbell, Colorado Springs; Harold T. Low, Pueblo.

Scientific Work: G. Burton Gilbert, Colorado Springs, Chairman; C. S. Bluemel, Denver; James J. Waring, Denver.

Arrangements: John B. Crouch, Colorado Springs, Chairman; T. R. Knowles, Colorado Springs; John B. Hartwell, Colorado Springs.

Public Policy: Walter W. King, Denver, Chairman; H. R. McKeen, Denver, Vice Chairman; Edward Delehanty, Denver; Gerrit Heusinkveld, Denver; A. L. Beaghler, Denver; W. W. Harmer, Greeley; O. D. Groshart, La Junta; L. L. Ward, Pueblo; A. C. Holand, Colorado Springs; F. B. Stephenson, Denver, ex-officio; L. W. Frank, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: C. F. Kemper, Denver, Chairman; C. S. Bluemel, Denver; William H. Crisp, Denver.

Medical Defense: W. W. Wasson, Denver, Chairman; C. F. Hegner, Denver; T. D. Cunningham, Denver.

Medical Education and Hospitals: C. N. Meader, Denver, Chairman; K. D. A. Allen, Denver; H. A. Black, Pueblo.

Library and Medical Literature: E. D. Downing, Woodmen, Chairman; Carbon Gillaspie, Boulder; F. W. Kenney, Denver.

Co-operation With Allied Professions: Harry S. Finney, Denver, Chairman; George R. Warner, Denver; John Andrew, Longmont.

Medical Economics: C. E. Cooper, Denver, Chairman; B. B. Blotz, Rocky Ford; Philip Hillkowitz, Denver.

Necrology: G. M. Blickensderfer, Denver, Chairman; John F. McConnell, Colorado Springs; Lee Bast, Delta.

Special Committees, 1932-1933

Postgraduate Clinics: Maurice H. Rees, Denver, Chairman; O. M. Gilbert, Boulder; C. E. Harris, Woodmen; Nolie Mumey, Denver; G. E. Cheley, Denver.

Workmen's Compensation Affairs: A. S. Cecchini, Denver, Chairman; L. G. Crosby, Denver; W. R. Waggener, Denver; J. D. Carey, Fort Collins; Lanning E. Likes, Lamar.

Veterans' Legislation: J. W. Amesse, Denver, Chairman; E. B. Liddle, Colorado Springs; Crum Epler, Pueblo; L. H. Winemiller, Denver; Louis V. Sams, Denver.

Advisory to the School of Medicine: John S. Bouslog, Denver, Chairman; N. A. Madler, Greeley; C. O. Giese, Colorado Springs; C. E. Sidwell, Longmont; T. D. Cunningham, Denver.

State Registration Fee: R. W. Arndt, Denver, Chairman; Frank E. Rogers, Denver; T. E. Beyer, Denver.

Constituent Societies Meeting Dates; Secretaries

Arapahoe County—Last Monday of each month; secretary, W. C. Crysler, Littleton.

Boulder County—Second Thursday; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, G. W. Larimer, Salida.

Crowley County—Second Tuesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, H. I. Barnard, Denver.

El Paso County—Second Wednesday of each month; secretary, W. A. Campbell, Jr., Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs, Colo.

Huerfano County—Third Thursday of each month; secretary, J. M. Lamme, Walsenburg, Colo.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, Walter C. Keller, Genoa.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, C. E. Honstein, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—First Tuesday of each month; secretary, H. M. Tupper, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each month; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Thursday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, R. J. Rummell, Lamar, Colo.

Pueblo County—First and Third Tuesday of each month; secretary, L. L. Ward, Pueblo.

San Juan—Second Saturday, January and alternate months; secretary, R. L. Downing, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Weld County—First Monday of each month; secretary, Tracy D. Peppers, Greeley, Colo.

List of Members of the Colorado State Medical Society

*Corrected to December 1, 1932**

AGUILAR, COLORADO

Name	*Address*	*Telephone*	*Society*
Horsky, Brooke	Aguilar	Aguilar 25	Las Animas
McClelland, M. A.	Aguilar	Aguilar 6	Las Animas

AKRON, COLORADO

Crawford, M. L.	Akron	Akron 16-W	Denver

ALAMO, COLORADO,

Whitehouse, William N.	Alamo	Walsenburg 020-J3	Huerfano

ALAMOSA, COLORADO

Anderson, Sidney	Physicians' Building	Alamosa 311	San Luis Valley
Davies, John D.	Alamosa	Alamosa 545	San Luis Valley
Davlin, C. A.	MacDonald Bldg.	Alamosa 75	San Luis Valley
Day, R. J.	Legion Bldg.	Alamosa 627	San Luis Valley
Dwyer, P. K.	Physicians' Bldg.	Alamosa 311	San Luis Valley
Herriman, L. L.	Physicians' Bldg.	Alamosa 46	San Luis Valley
Rupert, J. K.	Elks Bldg.	Alamosa 22	San Luis Valley

ANTONITO, COLORADO

Hurley, J. R.	Antonito	Antonito 3-J	San Luis Valley

ARRIBA, COLORADO

Keller, C. J.	Arriba	Arriba 14	Kit Carson

ARVADA, COLORADO

Dill, R. D.	Arvada	Arvada 105	Denver

ASPEN, COLORADO

Twining, W. H.	Aspen	Aspen 83	Garfield

AULT, COLORADO

Anderson, A.	Ault	Ault 58	Weld
McCain, A. C.	Ault	Ault 1-W	Weld

BERTHOUD, COLORADO

Hardesty, W. B.	Berthoud	Berthoud 48	Larimer
Howell, J. D.	Berthoud	Berthoud 55	Larimer
McCarty, D. W.	Berthoud	Berthoud 16-J2	Larimer

BOULDER, COLORADO

Alexander, Harry A.	Physicians Bldg.	Boulder 104	Boulder
Baird, W. J.	Physicians Bldg.	Boulder 834W	Boulder
Bonham, C. D.	Physicians Bldg.	Boulder 50W	Boulder
Cattermole, George H.	First National Bank bldg.	Boulder 164	Boulder
Farrington, F. H.	Mercantile Bank Bldg.	Boulder 246	Boulder
Farrington, Paul R.	Mercantile Bank Bldg.	Boulder 246	Boulder
Fischer, V. B.	Mercantile Bank Bldg.	Boulder 641W	Boulder
Gilbert, O. M.	Physicians Bldg.	Boulder 104	Boulder
Gillaspie, Carbon	First National Bank Bldg.	Boulder 27W	Boulder
Graf, Carl H.	Physicians Bldg.	Boulder 232	Boulder
Green, H. A.	4th & Mapleton	Boulder 1800	Boulder
Hartzell, H. W.	Boulder-Colorado Sanitarium	Boulder 1800	Boulder
Heuston, H. H.	First Natonial Bank Bldg.	Boulder 27W	Boulder
Johnson, Margaret L.	Boulderado Hotel	Boulder 322	Boulder
McCabe, F. H.	764 15th St.	Boulder 634	Boulder
Muenzinger, Florence W.	963 7th St.	Boulder 1240J	Boulder
Queal, E. B.	Physicians Bldg.	Boulder 152W	Boulder
Reed, W. K.	Physicians Bldg.	Boulder 1848W	Boulder
Rockwell, O.	Boulder-Colorado Sanatorium	Boulder 1800	Boulder
Spencer, F. R.	Physicians Bldg.	Boulder 23	Boulder

BRIGHTON, COLORADO

Hotchkiss, W. K.	Brighton	Brighton 104W	Denver

BROADMOOR, COLORADO

Joy, Homer T.	Broadmoor	Main 1537	El Paso

*Every effort has been made, up to the moment of going to press, to present this directory with absolute accuracy. To this end, final proof was checked with the latest information lists of the Mountain States Telephone Company and the U. S. Postoffice at Denver. If an error exists it is due to a change of address or telephone number not reaching the agencies through which the list has been verified.

BRUSH, COLORADO

Name	*Address*	*Telephone*	*Society*
Eakins, C. F.	Brush	Brush 62J	Morgan
Hildebrand, P. R.	Brush	Brush 50W	Morgan
Lusby, A. C.	Brush	Brush 6J	Morgan

BYERS, COLORADO

Lorimer, Hugh F.	Byers	Byers 13	Denver

CALHAN, COLORADO

Chandler, Gilbert B.	Calhan	Calhan 10W	El Paso

CAMPO, COLORADO

Patterson, R. F.	Campo	Call Long Distance	Prowers

CANON CITY, COLORADO

Bee, Archie	417 Macon Ave.	Canon City 70	Fremont
Graves, C. H.	602 Macon Ave.	Canon City 320	Fremont
Graves, H. C.	602 Macon Ave.	Canon City 320	Fremont
Hinshaw, J. D.	116 No. 7th St.	Canon City 142	Fremont
Holmes, R. E.	5th & Greenwood Ave.	Canon City 30	Fremont
Lynch, E. B.	Apex Bldg.	Canon City 388W	Fremont
Maxwell, J. G.	Apex Bldg.	Canon City 34J	Fremont
Shoun, D. A.	Apex Bldg.	Canon City 475	Fremont
Shoun, J. G.	Apex Bldg.	Canon City 475	Fremont
Webb, E. C.	Apex Bldg.	Canon City 102	Fremont
Wyatt, Kon	Postoffice Bldg.	Canon City 286J	Fremont

CARBONDALE, COLORADO

Tubbs, W. R.	Carbondale	Carbondale 35	Garfield

CASTLE ROCK, COLORADO

Palmer, W. A.	Castle Rock	Castle Rock 27J	Denver

CEDAREDGE, COLORADO

Aust, T. H.	Cedaredge	Cedaredge	Delta

CENTER, COLORADO

Carmichael, E. K.	Center	Center 4w	San Luis Valley
Greenfield, Lewis J.	Center	Center 7	San Luis Valley

CHANDLER, COLORADO

Butterbaugh, W. S.	Chandler	Call Long Distance	Fremont

CHERAW, COLORADO

Pitney, Orville	Cheraw	Cheraw 37-F3	Otero

CHEYENNE WELLS, COLORADO

Myers, L. N.	Cheyenne Wells	Cheyenne Wells 103	Garfield

COLLBRAN, COLORADO

Watson, W. V.	Collbran	Collbran 15-J4	Mesa
Zeigle, Henry H.	Collbran	Collbran 41	Mesa
Zinke, Wm.	Collbran	Collbran	Mesa

COLORADO SPRINGS, COLORADO

Allen, L. R.	Ferguson Bldg.	Main 1820	El Paso
Baker, Fred R.	Burns Bldg.	Main 4477	El Paso
Bancroft, G. W.	Ferguson Bldg.	Main 2259	El Paso
Beeson, H. B.	Ferguson Bldg.	Main 1391	El Paso
Boisservain, C. H.	Colorado College	Main 2449	El Paso
Bortree, L. W.	Ferguson Bldg.	Main 3181	El Paso
Boyd, G. A.	Exchange National Bank Bldg.	Main 803	El Paso
Brady, E. J.	Colorado Springs Psychopathic Hospital	Main 3703	El Paso
Brobeck, V. H.	Ferguson Bldg.	Main 126	El Paso
Brown, J. H.	Burns Bldg.	Main 45	El Paso
Brown, L. G.	707 No. Cascade Ave.	Main 1999	El Paso
Campbell, William A.	Exchange National Bank Bldg.	Main 104	El Paso
Chapman, E. N.	1101 N. Tejon St.	Main 2160	El Paso
Chapman, S. J.	Burns Bldg.	Main 781	El Paso
Coghlan, J. T.	204 First National Bank Bldg.	Main 753	El Paso
Conway, L. A.	Ferguson Bldg.	Main 4160	El Paso
Corlett, T. G.	First National Bank Bldg.	Main 753	El Paso
Crouch, J. B.	Ferguson Bldg.	Main 4160	El Paso
Cunning, J. E.	Burns Bldg.	Main 444	El Paso
Dennis, F. L.	301 Ferguson Bldg.	Main 4650M	El Paso
Drea, W. F.	Burns Bldg.	Main 961	El Paso
Dworak, F. E.	First National Bank Bldg.	Main 691	El Paso
Evans, T. J.	Crestone Heights Sanitarium	Main 407	El Paso
Faust, F. A.	819 N. Nevada Ave.	Main 687	El Paso
Forster, A. M.	Cragmor Sanatorium	Main 122	El Paso
Gardiner, C. F.	1112 No. Cascade Ave.	Main 127	El Paso
Giese, C. O.	316 Ferguson Bldg.	Main 4160	El Paso
Gilbert, George B.	402 Burns Bldg.	Main 1212	El Paso

COLORADO SPRINGS (Continued)

Name	*Address*	*Telephone*	*Society*
Gillett, O. R.	Independence Bldg.	Main 23	El Paso
Gilmore, George B.	Independence Bldg.	Main 23	El Paso
Good, B. D.	Cragmor Sanitarium	Main 122	El Paso
Goodson, H. C.	Exchange National Bank Bldg.	Main 150	El Paso
Gydesen, Carl S.	Ferguson Bldg.	Main 3712	El Paso
Haney, J. R.	First National Bank Bldg.	Main 473	El Paso
Hanford, Peter O.	720 No. Nevada Ave.	Main 1151	El Paso
Hartwell, John B.	Burns Bldg.	Main 218	El Paso
Hereford, John H.	Burns Bldg.	Main 57	El Paso
Hill, Lawrence H.	Burns Bldg.	Main 4559	El Paso
Hills, W. K.	Ferguson Bldg.	Main 665	El Paso
Holland, A. C.	Suite 208, Mining Exchange Bldg.	Main 800	El Paso
Howell, W. C.	Exchange National Bank Bldg.	Main 669	El Paso
Kettlekamp, Fred O.	Ferguson Bldg.	Main 267	El Paso
Knowles, Tom R.	Mining Exchange Bldg.	Main 78	El Paso
Lennox, P. M.	Burns Bldg.	Main 1039	El Paso
Liddle, E. B.	Burns Bldg.	Main 392	El Paso
Loomis, P. A.	Ferguson Bldg.	Main 4160	El Paso
Mahoney, J. J.	First National Bank Bldg.	Main 305	El Paso
Marbourg, E. M.	212 Burns Bldg.	Main 472	El Paso
McClanahan, Z. H.	Exchange National Bank Bldg.	Main 150	El Paso
McConnell, J. F.	Ferguson Bldg.	Main 353	El Paso
McCorkle, H. B.	First National Bank Bldg.	Main 1075	El Paso
McCracken, C. P.	462 First National Bank Bldg.	Main 1075	El Paso
McCrossin, W. P., Jr.	Burns Bldg.	Main 444	El Paso
McIntyre, T. A.	First National Bank Bldg.	Main 3641	El Paso
Miller, L. A.	Exchange National Bank Bldg.	Main 2898	El Paso
Morrison, C. S.	2514 W. Colorado Ave.	Main 965	El Paso
Mullett, A. M.	2006 Ridgeway	Main 4079J	El Paso
Murphey, Bradford J.	104 E. Rio Grande St.	Main 4005	El Paso
Neeper, E. R.	Exchange National Bank Bldg.	Main 1	El Paso
Owens, R. L.	Independence Bldg.	Main 326	El Paso
Powell, H. M.	64 Independence Bldg.	Main 4547	El Paso
Richmond, C. E.	222 E. Dale St.	Main 821	El Paso
Rothrock, F. B.	Independence Bldg.	Main 326	El Paso
Ryder, Charles T.	Burns Bldg.	Main 1212	El Paso
Schaefer, S. W.	112 Exchange National Bank Bldg.	Main 242	El Paso
Service, W. C.	402 Burns Bldg.	Main 1212	El Paso
Sevier, J. A.	Burns Bldg.	Main 1212	El Paso
Shivers, M. O.	First National Bank Bldg.	Main 793	El Paso
Smith, W. A.	Ferguson Bldg.	Main 3711	El Paso
Staines, Minnie E.	Burns Bldg.	Main 724	El Paso
Stevens, Frank T.	211 Ferguson Bldg.	Main 1240	El Paso
Stine, George H.	Burns Bldg.	Main 5090	El Paso
Stough, C. F.	Ferguson Bldg.	Main 4160	El Paso
Timmons, E. L.	712 Exchange National Bank Bldg.	Main 193	El Paso
Tucker, Beverly	1130 No. Nevada Ave.	Main 1166	El Paso
Vanderhoof, D. A.	Exchange National Bank Bldg.	Main 77	El Paso
Webb, G. B.	402 Burns Bldg.	Main 1212	El Paso
Williams, Judson T.	Ferguson Bldg.	Main 3711	El Paso
Winternitz, David H.	Burns Bldg.	Main 4559	El Paso
Woodward, Harry W.	Ferguson Bldg.	Main 4160	El Paso

CORTEZ, COLORADO

Calkins, R. W.	Cortez	Cortez 77	San Juan
Johnson, E. E.	Cortez	Cortez 8	San Juan
Trumbauer, C. A.	Cortez	Cortez	Denver

CRAIG, COLORADO

Bailey, B. M.	Craig	Craig	Northwestern
Clayton, J. A. G.	Craig	Craig 38	Northwestern
Cook, D. M.	Craig	Craig 148W	Northwestern
Day, A. L.	Craig	Craig 101	Northwestern

CREEDE, COLORADO

McKibbin, S.	Creede	Creede 24W	San Luis Valley

CRESTED BUTTE, COLORADO

Alford, J. S.	Crested Butte	Crested Butte 10J	Denver

CRIPPLE CREEK, COLORADO

Hassenplug, W. F.	Cripple Creek	Cripple Creek 132	El Paso

DELAGUA, COLORADO

Jackson, Eugene	Delagua	Trinidad 042-J2	Las Animas

DEL NORTE, COLORADO

Gjellum, A. B.	Del Norte	Del Norte 30	San Luis Valley

DELTA, COLORADO

Name	*Address*	*Telephone*	*Society*
Bast, L.	Colorado Bank & Trust Co. Bldg.	Delta 295	Delta
Burgin, C. H.	358 Main St.	Delta 37W	Delta
Cleland, W. S.	Delta	Delta 102W	Delta
Day, W. A.	Colorado Bank & Trust Co. Bldg.	Delta 294	Delta
Erich, A. F.	Hillman Bldg.	Delta 40	Delta
Hick, Lawrence A.	Colorado Bank & Trust Co. Bldg.	Delta 293	Delta
Hick, L. L.	Colorado Bank & Trust Co. Bldg.	Delta 293	Delta
McClanahan, A. C.	Delta	Delta 73-J1	Delta
Miller, A. E.	Delta	Delta 75-R1	Delta
Shaffer, E. G.	Hillman Bldg.	Delta 72W	Delta

DENVER, COLORADO

Albi, R.	309 American Bank Bldg.	Keystone 7703	Denver
Allen, Kenneth D. A.	452 Metropolitan Bldg.	Tabor 4208	Denver
Allen, Phillip C. C.	224 Republic Bldg.	Main 2235	Denver
Allen, R. S.	25 E. Iowa Ave.	Pearl 0211	Denver
Altieri, J. A.	4057 Tejon St.	Gallup 6854	Denver
Amesse, J. W.	624 Metropolitan Bldg.	Tabor 0181	Denver
Anderson, C. W.	224 Republic Bldg.	Main 2235	Denver
Anderson, Thompson	210 Metropolitan Bldg.	Tabor 4938	Denver
Apperson, E. L.	1035 Republic Bldg.	Tabor 6956	Denver
Arbini, E. A.	4656 Gilpin St.	Tabor 5591	Denver
Argall, A. J.	920 Metropolitan Bldg.	Keystone 5304	Denver
Arndt, R. W.	100 Metropolitan Bldg.	Main 4187	Denver
Arneill, James Rae	100 Metropolitan Bldg.	Main 4187	Denver
Ashley, G. H.	432 Republic Bldg.	Tabor 8044	Denver
Atcheson, George	405 Tabor Bldg.	Main 1776	Denver
Attwood, A. De Forest	4635 W. 38th Ave.	Gallup 0127	Denver
Bagot, W. S.	500 17th St.	Tabor 3221	Denver
Bane, W. M.	1005 Republic Bldg.	Keystone 5731	Denver
Barber, W. W.	624 Metropolitan Bldg.	Tabor 0181	Denver
Barnard, H. I.	1707 E. 18th Ave.	York 7720	Denver
Barney, J. Murray	234 Mack Bldg.	Tabor 2541	Denver
Baskin, M J.	425 Republic Bldg.	Keystone 5913	Denver
Bassow, S. H.	703 Republic Bldg.	Keystone 7907	Denver
Bates, Mary E.	224 Majestic Bldg.	Keystone 7314	Denver
Battock, Benjamin H.	J. C. R. S. Sanitarium	Keystone 3161	Denver
Baum, Harry L.	510 Republic Bldg.	Tabor 2954	Denver
Beaghler, Amos L.	414 14th St.	Tabor 7151	Denver
Beall, W. C.	3525 W. 49th Ave.	Gallup 1438	Denver
Beers, Ida V.	940 Metropolitan Bldg.	Keystone 2661	Denver
Beggs, W. N.	1403 Delaware St.	Main 2540	Denver
Bell, C. C.	309 Republic Bldg.	Tabor 4353	Denver
Berlin, W. C. K.	531 Mack Bldg.	Keystone 1791	Denver
Beroard, L. C. E.	3401 Federal Blvd.	Gallup 5327	Denver
Best, T. E.	411 Mack Bldg.	Main 3457	Denver
Beyer, T. E.	418 Majestic Bldg.	Tabor 3800	Denver
Bigelow, May T.	15 Pearl St.	Spruce 2573	Denver
Bingham, W. J.	724 Metropolitan Bldg.	Keystone 8394	Denver
Bishop, F. Dewey	2901 E. Colfax Ave.	Franklin 1362	Denver
Black, Melville	424 Metropolitan Bldg.	Keystone 5617	Denver
Black, W. C., Jr.	4200 E. 9th Ave.	York 8500	Denver
Blanchard, W. E.	601 Republic Bldg.	Main 3609	Denver
Blank, Henry	1218 Republic Bldg.	Main 4798	Denver
Blickensderfer, G. M.	548 Franklin St.	Tabor 4414	Denver
Block, Leon	724 Republic Bldg.	Tabor 5593	Denver
Blosser, John R.	1159 Welton St.	Main 3445	Denver
Bluemel, C. S.	550 Metropolitan Bldg.	Tabor 4078	Denver
Bonesteel, A. E.	520 Metropolitan Bldg.	Keystone 6011	Denver
Bouslog, J. S.	246 Metropolitan Bldg.	Tabor 3037	Denver
Bramley, J. R.	603 Majestic Bldg.	Main 5746	Denver
Brandenburg, H. P.	155 Metropolitan Bldg.	Keystone 0523	Denver
Brandon, E. Agnes	829 Majestic Bldg.	Keystone 3800	Denver
Brinton, W. T.	406 Republic Bldg.	Keystone 8231	Denver
Bronfin, I. D.	3800 E. Colfax Ave.	York 5410	Denver
Brown, Harry C.	330 Republic Bldg.	Tabor 1053	Denver
Brown, L. T.	846 Metropolitan Bldg.	Tabor 0825	Denver
Brown, M. D.	432 Republic Bldg.	Main 2889	Denver
Buchtel, Henry A.	904 Republic Bldg.	Keystone 8628	Denver
Buck, G. R.	1271 Kalamath St.	Tabor 7856	Denver
Bundsen, C. A.	738 Metropolitan Bldg.	Tabor 2265	Denver
Burnett, C. T.	550 Metropolitan Bldg.	Tabor 5428	Denver
Burns, T. M.	640 Metropolitan Bldg.	Main 3508	Denver
Bush, C. E.	30 E. Dakota St.	Spruce 0016	Denver
Bushell, C. Edward	312 17th St.	Keystone 0474	Denver

DENVER (Continued)

Name	*Address*	*Telephone*	*Society*
Butman, W. W.	833 Majestic Bldg.	Keystone 7823	Denver
Canby, H. S.	606 Metropolitan Bldg.	Keystone 2051	Denver
Carmody, T. E.	806 Metropolitan Bldg.	Keystone 5464	Denver
Carpenter, F. H.	1218 Republic Bldg.	Main 4798	Denver
Carson, P. C.	557 So. University	Sunset 1770	Denver
Cassidy, L. F.	115 Broadway	Spruce 5471	Denver
Cattermole, George S.	301 Majestic Bldg.	Tabor 1762	Denver
Catterson, A. D.	654 Metropolitan Bldg.	Keystone 8408	Denver
Cecchini, A. S.	100 Metropolitan Bldg.	Main 4187	Denver
Chambers, Karl	812 Republic Bldg.	Tabor 0620	Denver
Chaney, W. C.	608 Majestic Bldg.	Tabor 3364	Denver
Charles, R. L.	564 Metropolitan Bldg.	Keystone 7023	Denver
Chase, Alpha M.	434 Franklin St.	Franklin 2492	Denver
Chase, J. S.	821 Republic Bldg.	Main 5284	Denver
Cheley, G. E.	203 Metropolitan Bldg.	Main 4002	Denver
Childs, S. B.	142 Metropolitan Bldg.	Tabor 5141	Denver
Chisholm, A. J.	232 Metropolitan Bldg.	Tabor 0477	Denver
Chouke, K. S.	4200 E. 9th Ave.	York 8500	Denver
Clark, Dumont	330 Republic Bldg.	Tabor 1053	Denver
Coakley, H. E.	1001 Republic Bldg.	Keystone 1480	Denver
Cobianchi, P. L.	1521 W. 34th Ave.	Gallup 7891	Denver
Cohen, Haskell M.	709 Republic Bldg.	Main 5820	Denver
Coleman, Oscar E.	304 Majestic Bldg.	Keystone 7020	Denver
Collins, E. W.	508 Majestic Bldg.	Tabor 0568	Denver
Connell, J. E. A.	764 Metropolitan Bldg.	Keystone 5784	Denver
Connor, P. J.	1123 Republic Bldg.	Tabor 2903	Denver
Conyers, C. A.	306 Republic Bldg.	Keystone 4916	Denver
Cooper, C. E.	652 Metropolitan Bldg.	Main 2922	Denver
Cooper, Clyde J.	226 Metropolitan Bldg.	Tabor 0477	Denver
Cooper, H. L.	406 Republic Bldg.	Keystone 5838	Denver
Cooper, Henry S.	610 Metropolitan Bldg.	Tabor 2857	Denver
Cooper, Horace S.	234 Mack Bldg.	Tabor 2541	Denver
Cooper, K. G.	652 Metropolitan Bldg.	Main 2922	Denver
Corper, H. J.	3800 E. Colfax Ave.	York 5410	Denver
Cotton, G. K.	418 Republic Bldg.	Keystone 5289	Denver
Craig, Alexander C.	122 E. 16th Ave.	Keystone 2429	Denver
Crisp, W. H.	530 Metropolitan Bldg.	Tabor 3719	Denver
Crosby, L. G.	142 Metropolitan Bldg.	Tabor 5141	Denver
Cunningham, T. D.	932 Republic Bldg.	Main 3470	Denver
Currigan, Martin D.	610 Metropolitan Bldg.	Tabor 2857	Denver
Curtis, H. B.	203 Cooper Bldg.	Main 5463	Denver
Daniels, L. E.	924 Republic Bldg.	Keystone 5037	Denver
Danielson, Ralph W.	258 Metropolitan Bldg.	Main 2332	Denver
Darley, Ward	518 Majestic Bldg.	Tabor 0914	Denver
Darrow, C. H.	110 Metropolitan Bldg.	Main 4133	Denver
Davis, J. B.	664 Metropolitan Bldg.	Keystone 6061	Denver
Davis, Jefferson W.	3805 Lowell Blvd.	Gallup 2591	Denver
Dean, E. F.	506 Metropolitan Bldg.	Main 5609	Denver
Delehanty, E. S.	235 Majestic Bldg.	Keystone 2916	Denver
Denman, A. C.	203 Metropolitan Bldg.	Main 4002	Denver
Dennis, W. S.	412 Republic Bldg.	Keystone 1555	Denver
Dickman, P. A.	930 Metropolitan Bldg.	Main 3661	Denver
Dickson, Logan M.	1565 Pearl St.	Keystone 9525	Denver
Dickson, R. W.	730 Metropolitan Bldg.	Tabor 2629	Denver
Dixon, Robert K.	1104 Republic Bldg.	Keystone 8898	Denver
Diemer, F. E.	813 Republic Bldg.	Tabor 0817	Denver
Dobos, E. I.	St. Joseph's Hospital	Franklin 3772	Denver
Dorset, B. C.	432 Republic Bldg.	Keystone 0798	Denver
Dorsey, C. W.	330 Metropolitan Bldg.	Tabor 4802	Denver
Dorsey, G. H.	302 Metropolitan Bldg.	Main 2232	Denver
Doty, D. A.	738 Metropolitan Bldg.	Tabor 2265	Denver
Douglass, A. L.	306 Mack Bldg.	Tabor 3444	Denver
Drever, J. Henry	309 Mack Bldg.	Keystone 5445	Denver
Drinkwater, R. L.	804 Republic Bldg.	Tabor 7066	Denver
Dumm, B. I.	415 Majestic Bldg.	Main 0424	Denver
Durbin, Edgar	550 Metropolitan Bldg.	Tabor 5428	Denver
Earley, A. H.	1204 Republic Bldg.	Keystone 0680	Denver
Eastlake, A. C.	816 Republic Bldg.	Main 5761	Denver
Ebaugh, Franklin G.	4200 E. 9th Ave.	York 8500	Denver
Edwards, G. M.	732 Republic Bldg.	Tabor 0013	Denver
Ehrenburg, G. E.	J. C. R. S.	Keystone 3161	Denver
Elder, C. S.	802 Majestic Bldg.	Tabor 8515	Denver
Elliot, H. R.	330 Metropolitan Bldg.	Tabor 4802	Denver
Elrick, Leroy	816 Republic Bldg.	Keystone 7411	Denver
Enos, Clinton	831 Majestic Bldg.	Main 1633	Denver

DENVER (Continued)

Name	*Address*	*Telephone*	*Society*
Esserman, A. L.	326 Republic Bldg.	Main 1943	Denver
Evans, F. J.	414 Mack Bldg.	Tabor 7538	Denver
Evans, John R.	620 Republic Bldg.	Tabor 8531	Denver
Eyerly, T. L.	328 U. S. Customs Bldg.	Keystone 4151	Huerfano
Faber, E. G.	224 Republic Bldg.	Main 2235	Denver
Faust, L. S.	1104 Republic Bldg.	Keystone 8898	Denver
Filmer, B. A.	824 Majestic Bldg.	Keystone 0420	Denver
Finney, H. S.	1236 Republic Bldg.	Tabor 0626	Denver
Finnoff, Wm. C.	920 Republic Bldg.	Keystone 4980	Denver
Fisher, C. D.	633 Mack Bldg.	Keystone 0878	Denver
Forbes, Roy P.	1850 Gilpin St.	Franklin 4772	Denver
Foster, John M.	738 Metropolitan Bldg.	Tabor 2248	Denver
Foster, J. M., Jr.	504 Republic Bldg.	Keystone 0294	Denver
Fowler, H. L.	425 Mack Bldg.	Tabor 3063	Denver
Fowler, O. S.	302 Metropolitan Bldg.	Tabor 3663	Denver
Frank, L. W.	610 Republic Bldg.	Main 5853	Denver
Fraser, M. E. V.	737 Republic Bldg.	Tabor 2672	Denver
Fraser, R. W.	215 Majestic Bldg.	Keystone 0846	Denver
Freeland, H. J.	516 Republic Bldg.	Tabor 4562	Denver
Freeman, Leonard	424 Metropolitan Bldg.	Keystone 5617	Denver
Freshman, A. W.	234 Metropolitan Bldg.	Main 2954	Denver
Friedman, E.	326 Republic Bldg.	Main 1943	Denver
Friesch, Wenzel	625 Republic Bldg.	Main 6829	Denver
Frumess, G. M.	332 Republic Bldg.	Main 6777	Denver
Gale, M. J.	737 Republic Bldg.	Tabor 2672	Denver
Gallaher, T. J.	605 California Bldg.	Keystone 0628	Denver
Garwood, H. G.	521 Majestic Bldg.	Tabor 0738	Denver
Gauss, Harry	1106 Republic Bldg.	Tabor 5723	Denver
Gelien, Johanna	1480 High St.	Franklin 6124	Denver
Gengenbach, F. P.	1850 Gilpin St.	Franklin 4772	Denver
George, McLeod M.	Bethesda Sanitarium	Pearl 5033	Denver
Gillen, G. H.	1337 Gaylord St.	York 3716	Denver
Ginsburg, M. M.	624 Metropolitan Bldg.	Tabor 0181	Denver
Glenn, G. A.	4200 Tejon St.	Gallup 4500	Denver
Goldhammer, Samuel	615 Republic Bldg.	Main 4695	Denver
Gorsuch, John C.	505 Mack Bldg.	Keystone 8703	Denver
Graham, D. A.	1113 Republic Bldg.	Main 0614	Denver
Graham, E. V.	1205 Republic Bldg.	Tabor 2456	Denver
Green, L. W.	1237 Republic Bldg.	Keystone 8600	Denver
Greig, William M.	415 Majestic Bldg.	Main 0424	Denver
Guthrie, A. B.	318 Republic Bldg.	Tabor 1631	Denver
Guthrie, E. C.	404 Steele Bldg.	Keystone 5661	Denver
Gwinn, Lawrence M.	1005 So. Gaylord St.	Spruce 1249	Denver
Haggart, William W.	1003 Republic Bldg.	Tabor 1418	Denver
Hall, J. N.	730 Metropolitan Bldg.	Keystone 6650	Denver
Halley, William H.	830 Metropolitan Bldg.	Tabor 6715	Denver
Halsted, F. S.	738 Metropolitan Bldg.	Tabor 2248	Denver
Hammill, J. P.	315 Commonwealth Bldg.	Main 9944	Denver
Hansen, F. P.	506 Mack Bldg.	Tabor 5915	Denver
Hargreaves, O. C.	3700 W. 32nd Ave.	Gallup 2210	Denver
Hartendorp, Paulus	500 Broadway National Bank Bldg.	Spruce 4142	Denver
Hartley, J. E.	1224 Republic Bldg.	Tabor 1224	Denver
Harvey, E. A.	Mercy Hospital	York 1900	Denver
Harvey, E. L.	632 Republic Bldg.	Tabor 5366	Denver
Harvey, H. G.	632 Republic Bldg.	Tabor 5366	Denver
Harvey, H. G., Jr.	632 Republic Bldg.	Tabor 5366	Denver
Hazlett, J. D.	604 Republic Bldg.	Keystone 0108	Denver
Hegner, C. F.	920 Metropolitan Bldg.	Keystone 7913	Denver
Henderson, H. B.	509 Republic Bldg.	Main 5191	Denver
Hepp, G. B.	521 Mack Bldg.	Keystone 0677	Denver
Hepp, Louis C.	521 Mack Bldg.	Keystone 0677	Denver
Heusinkveld, Gerrit	620 Republic Bldg.	Tabor 8531	Denver
Hickey, C. G.	823 Republic Bldg.	Keystone 3527	Denver
Hickey, H. L.	934 Republic Bldg.	Keystone 1742	Denver
Higbee, D. R.	915 Republic Bldg.	Tabor 8311	Denver
Hill, K. A.	632 Metropolitan Bldg.	Main 2340	Denver
Hillkowitz, Philip	236 Metropolitan Bldg.	Main 2954	Denver
Hilton, Jack Palmer	Mount Airy Sanitarium	York 0849	Denver
Hinton, C. B.	104 Broadway	Spruce 0995	Denver
Hix, I. E.	1138 Republic Bldg.	Keystone 8421	Denver
Holden, G. W.	606 Metropolitan Bldg.	Keystone 0473	Denver
Holt, Frank	1010 Republic Bldg.	Main 1486	Denver
Hopkins, H. J.	3211 Lowell Blvd.	Gallup 7360	Denver
Hopkins, J. R.	556 Metropolitan Bldg.	Main 2755	Denver
Hopkins, T. M.	520 Metropolitan Bldg.	Tabor 2553	Denver

DENVER (Continued)

Name	*Address*	*Telephone*	*Society*
Howard, J. F.	2400 Gaylord St.	Franklin 1801	Denver
Howard, T. Leon	1224 Republic Bldg.	Tabor 1224	Denver
Hoyt, R. W.	404 Republic Bldg.	Keystone 5517	Denver
Hudston, Ranulph	1203 Republic Bldg.	Main 1381	Denver
Hutchison, James E.	216 Republic Bldg.	Keystone 1624	Denver
Hutton, J. G.	506 Republic Bldg.	Tabor 5625	Denver
Inglis, John	837 Republic Bldg.	Main 5524	Denver
Ingraham, C. B.	509 Republic Bldg.	Main 5191	Denver
Irwin, R. S.	714 Republic Bldg.	Main 5515	Denver
Jackson, Edward	1120 Republic Bldg.	Keystone 7517	Denver
Jaeger, J. R.	632 Republic Bldg	Tabor 5366	Denver
Jaffa, B. B.	830 Metropolitan Bldg.	Tabor 6715	Denver
Jelstrup, Gunnar	516 Republic Bldg.	Keystone 0409	Denver
Jeurink, John	1630 So. Pearl St.	Spruce 6058	Denver
Jeurink, V. G.	527 Republic Bldg.	Main 3938	Denver
Jobe, M. C.	606 Metropolitan Bldg.	Main 4543	Denver
John, G. H.	560 Metropolitan Bldg.	Keystone 7023	Denver
Johnson, George S.	4200 E. 9th Ave.	York 8500	Denver
Jones, S. Fosdick	Cosmopolitan Hotel	Main 2181	Denver
Jones, V. H.	322 Republic Bldg.	Tabor 4041	Denver
Jones, Wiley	735 Majestic Bldg.	Keystone 2601	Denver
Katzman, Maurice	402 Republic Bldg.	Keystone 0411	Denver
Kelsey, Otis H.	633 Majestic Bldg.	Main 5056	Denver
Kemper, C. F.	930 Metropolitan Bldg.	Main 3661	Denver
Kennedy, A. L.	835 Gaylord St.	York 7033	Denver
Kenney, F. W.	Capitol Life Bldg.	Keystone 2211	Denver
Kent, G. B.	516 Republic Bldg.	Main 2646	Denver
Kent, W. C.	727 Majestic Bldg.	Tabor 5818	Denver
King, W. W.	738 Metropolitan Bldg.	Tabor 2265	Denver
Kingry, C. B.	Presbyterian Hospital	York 7566	Denver
Kinney, J. E.	606 Metropolitan Bldg.	Keystone 0473	Denver
Knoch, N. H.	737 Majestic Bldg.	Keystone 3431	Denver
Koplowitz, J. E.	1120 Republic Bldg.	Main 6691	Denver
Kracaw, A. R.	735 Monroe St.	Keystone 1003	Denver
Kretschmer, O. S.	306 Republic Bldg.	Keystone 8563	Denver
Krohn, Morris J.	403 Central Savings Bank Bldg.	Keystone 8517	Denver
Krueger, E. H.	2736 Vine St.	York 3445	Denver
Kruse, May B.	315 Republic Bldg.	Keystone 3006	Denver
Kunitoma, N.	830 18th St.	Tabor 1983	Denver
Laff, Herman I.	406 Metropolitan Bldg.	Keystone 1908	Denver
Lamberton, R. F.	314 Mack Bldg.	Keystone 2548	Denver
Lang, Ray R.	229 Commonwealth Bldg.	Keystone 2436	Denver
Lannon, A. R.	623 Republic Bldg.	Tabor 5366	Denver
Lee, G. H.	330 Metropolitan Bldg.	Keystone 4323	Denver
Lee, L. W.	727 Republic Bldg.	Tabor 7816	Denver
LeFevre, H. W., Jr.	816 Republic Bldg.	Keystone 7411	Denver
LeRossignol, W. J.	686 So. Pearl St.	Pearl 0933	Denver
Levy, Maurice	709 Republic Bldg.	Main 0633	Denver
Levy, Robert	406 Metropolitan Bldg.	Keystone 1908	Denver
Lewis, George B.	856 Metropolitan Bldg.	Tabor 5788	Denver
Lewis, Robert	230 Majestic Bldg.	Tabor 3890	Denver
Lewis, W. B.	3268 W. 32nd Ave.	Gallup 0224	Denver
Leyda, J. H.	956 Metropolitan Bldg.	Keystone 3768	Denver
Lilienthal, Samuel	8000 Mt. View Blvd.	York 4614	Denver
Lincoln, C. L.	301 Majestic Bldg.	Tabor 1762	Denver
Lingenfelter, G. P.	646 Metropolitan Bldg.	Keystone 6431	Denver
Lipscomb, John M.	1224 Republic Bldg.	Tabor 1224	Denver
Lof, A. J. O.	836 Metropolitan Bldg.	Keystone 4000	Denver
Long, Margaret	940 Metropolitan Bldg.	Keystone 2661	Denver
Lorber, M. B.	266 Metropolitan Bldg.	Tabor 4289	Denver
Love, T. R.	730 Metropolitan Bldg.	Keystone 6650	Denver
Lowen, C. J.	717 Republic Bldg.	Main 2331	Denver
Lowther, R. R.	945 Washington St.	Franklin 2967	Denver
Macomber, D. W.	532 Republic Bldg.	Main 2046	Denver
Macomber, G. N.	1415 Welton St.	Keystone 7733	Denver
Macomber, H. G.	1415 Welton St.	Keystone 7733	Denver
Maier, Frank Julian	1123 Republic Bldg.	Tabor 2903	Denver
Main, George C.	227 Mack Bldg.	Keystone 5341	Denver
Manns, Rudolph	722 Republic Bldg.	Keystone 7001	Denver
Marcove, M. E.	526 Republic Bldg.	Main 5416	Denver
Markel, C.	631 Majestic Bldg.	Main 4942	Denver
Markley, A. J.	432 Metropolitan Bldg.	Keystone 2829	Denver
Mason, Lyman W.	707 Republic Bldg.	Main 2344	Denver
Maul, H. G.	227 Mack Bldg.	Keystone 5341	Denver
Maul, R. F.	227 Mack Bldg.	Keystone 5341	Denver

DENVER (Continued)

Name	*Address*	*Telephone*	*Society*
McCaw, John A.	415 Majestic Bldg.	Tabor 3800	Denver
McDonald, R. J.	626 Republic Bldg.	Tabor 7747	Denver
McGraw, H. R.	416 Metropolitan Bldg.	Keystone 3934	Denver
McKeen, H. R.	532 Republic Bldg.	Keystone 7610	Denver
McKelvey, S. R.	State Office Bldg.	Keystone 1171	Denver
McKeown, E. E.	406 Republic Bldg.	Keystone 8231	Denver
McLauthlin, C. A.	532 Republic Bldg.	Tabor 1067	Denver
McNaught, F. H.	817 Majestic Bldg.	Keystone 2921	Denver
Meade, E. E.	527 Mack Bldg.	Tabor 5788	Denver
Meader, C. N.	518 Majestic Bldg.	Tabor 0914	Denver
Metcalf, A. W., Jr.	1134 Republic Bldg.	Keystone 2522	Denver
Metz, C. W.	1134 Republic Bldg.	Keystone 2522	Denver
Miel, G. W.	824 Majestic Bldg.	Keystone 0420	Denver
Miller, A. H.	732 Republic Bldg.	Tabor 2803	Denver
Miller, Eli A.	266 Metropolitan Bldg.	Tabor 4289	Denver
Miller, L. I.	266 Metropolitan Bldg.	Tabor 4289	Denver
Miller, Simon I.	1024 Republic Bldg.	Tabor 8614	Denver
Mills, F. M.	858 So. Race St.	Spruce 3295	Denver
Minnig, Arnold	522 Republic Bldg.	Keystone 1571	Denver
Mitchell, W. C.	430 State Office Bldg.	Keystone 1171	Denver
Mogan, W. E.	423 Republic Bldg.	Main 1847	Denver
Monaghan, D. G.	535 Majestic Bldg.	Main 0706	Denver
Monson, G. L.	846 Metropolitan Bldg.	Tabor 0825	Denver
Moon, A. L.	2525 So. Downing St.	Pearl 3721	Denver
Morning, J. F.	521 Mack Bldg.	Keystone 5531	Denver
Morrill, E. L.	United Securities Bldg.	Franklin 2715	Larimer
Morrison, R. G.	724 Metropolitan Bldg.	Main 3747	Denver
Mudd, W. G.	212 Majestic Bldg.	Keystone 3623	Denver
Mugrage, E. R.	4200 E. 9th Ave.	York 8500	Denver
Mumey, Nolie	1133 Republic Bldg.	Keystone 3600	Denver
Murphy, Rex L.	110 Metropolitan Bldg.	Main 4133	Denver
Nelson, Eli	640 Metropolitan Bldg.	Main 3508	Denver
Ness, R. J.	354 Metropolitan Bldg.	Keystone 4472	Denver
Newcomer, Elizabeth H.	306 Republic Bldg.	Keystone 8563	Denver
Newcomer, N. B.	306 Republic Bldg.	Keystone 8563	Denver
Newsom, H. G.	227 Mack Bldg.	Keystone 5341	Denver
Ohmart, W. A.	83 So. Broadway	Spruce 1760	Denver
Olmsted, G. K.	505 Republic Bldg.	Main 3014	Denver
Oppenheim, S. M.	312 Metropolitan Bldg.	Tabor 0781	Denver
O'Rourke, D. H.	1120 Republic Bldg.	Keystone 8315	Denver
Orsborn, G. E.	428 Majestic Bldg.	Main 0971	Denver
Packard, George B.	764 Metropolitan Bldg.	Keystone 5784	Denver
Packard, Robert G.	1707 E. 18th Ave.	York 7720	Denver
Pate, C. E.	520 Metropolitan Bldg.	Keystone 1839	Denver
Peck, G. S.	226 Majestic Bldg.	Keystone 6511	Denver
Perkins, C. C.	907 Republic Bldg.	Keystone 6712	Denver
Perkins, Earl J.	958 Metropolitan Bldg.	Keystone 4637	Denver
Perrott, E. W.	1024 Republic Bldg.	Keystone 6084	Denver
Perry, R. B.	637 Republic Bldg.	Keystone 0343	Denver
Pershing, Howell T.	706 Metropolitan Bldg.	Keystone 2022	Denver
Phillips, Samuel Grover	529 Majestic Bldg.	Main 0458	Denver
Philpott, Ivan W.	920 Metropolitan Bldg.	Keystone 5304	Denver
Philpott, J A.	202 Metropolitan Bldg.	Tabor 2985	Denver
Philpott, O. S.	432 Metropolitan Bldg.	Keystone 2829	Denver
Plaugher, Lee Roy	1580 Logan St.	Tabor 9447	Garfield
Pollard, J. W.	530 Republic Bldg.	Main 3801	Denver
Pollock, C. R.	704 Republic Bldg.	Tabor 7516	Denver
Pothuisje, P. J.	638 Majestic Bldg.	Main 3539	Denver
Potter, S. B.	830 Metropolitan Bldg.	Tabor 6715	Denver
Powell, Cuthbert	1578 Humboldt St.	York 2343	Denver
Pratt, E. S.	737 Republic Bldg.	Tabor 2672	Denver
Prey, Duval	504 Republic Bldg.	Keystone 0294	Denver
Price, Craig	100 Metropolitan Bldg.	Main 4187	Denver
Prinzing, J. F.	717 Republic Bldg.	Keystone 5713	Denver
Purcell, J. W.	3788 Walnut St.	Keystone 6911	Denver
Ramsey, R. T.	566 Metropolitan Bldg.	Main 4619	Denver
Reed, M. W.	401 Republic Bldg.	Main 1328	Denver
Rees, Maurice H.	4200 E. 9th Ave.	York 8500	Denver
Reilly, J. J.	1931 Eudora St.	York 5740	Denver
Reynolds, Edna M.	920 Republic Bldg.	Keystone 4980	Denver
Richards, D. F.	804 Republic Bldg.	Tabor 4761	Denver
Rilance, C. D.	904 Republic Bldg.	Keystone 6429	Denver
Ritterspach, F. J.	820 Metropolitan Bldg.	Keystone 3124	Denver
Robb, William J.	509 Insurance Bldg.	Main 1422	Denver
Robinson, James M.	904 Republic Bldg.	Main 2336	Denver

DENVER (Continued)

Name	*Address*	*Telephone*	*Society*
Roe, J. F.	641 Equitable Bldg.	Tabor 1162	Denver
Roehrig, Karl F.	806 Republic Bldg.	Main 2950	Denver
Rogers, F. E.	802 Majestic Bldg.	Tabor 8515	Denver
Rothwell, W. D.	438 Republic Bldg.	Tabor 3981	Denver
Ruddy, James	611 Republic Bldg.	Tabor 6038	Denver
Ruegnitz, L. H.	1717 Downing St.	York 1134	Denver
Russell, James E.	820 Metropolitan Bldg.	Keystone 3792	Denver
Ryan, J. G.	725 Mack Bldg.	Main 0834	Denver
Safarik, L. R.	1017 Republic Bldg.	Keystone 8507	Denver
Saks, H. S.	312 17th St.	Main 6884	Denver
Sams, L. V.	1010 Republic Bldg.	Main 1486	Denver
Savage, Raymond J.	635 Republic Bldg.	Tabor 1819	Denver
Schachet, Reuben	212 Majestic Bldg.	Tabor 6432	Denver
Scherrer, E A.	216 Republic Bldg.	Keystone 1624	Denver
Schmidt, E. A.	4200 E. 9th Ave.	York 8500	Denver
Schoonover, J. A.	610 Republic Bldg.	Tabor 5514	Denver
Schroeder, R. H.	756 Metropolitan Bldg.	Tabor 6776	Denver
Schwatt, Herman	J. C. R. S.	Keystone 3161	Denver
Searle, Hester B.	1415 Welton St.	Keystone 7733	Denver
Sears, Thad P.	Medical Dept. Denver Tramway Co.	Main 5111	Denver
Sedwick, W. A.	835 Republic Bldg.	Tabor 1941	Denver
Seebass, A. R.	509 Insurance Bldg.	Main 1422	Denver
Sells, V. E.	907 Republic Bldg.	Tabor 4877	Denver
Sevier, C. E.	418 Republic Bldg.	Keystone 5289	Denver
Sewall, Henry	1360 Vine St.	York 1474	Denver
Seyler, Anna G.	2067 So. Pearl St.	Spruce 5674	Denver
Shea, R. M.	1244 Grant St.	Keystone 0354	Denver
Shields, J. M.	262 Metropolitan Bldg.	Tabor 4594	Denver
Shollenberger, C. F.	2836 Federal Blvd.	Gallup 1730R	Denver
Simon, S.	1215 Republic Bldg.	Keystone 3417	Denver
Sims, Harry J.	25 E. Iowa Ave.	Pearl 0211	Denver
Smith, Charles	509 Republic Bldg.	Main 5191	Denver
Smith, Fisher E.	315 Mercantile Bldg.	Tabor 0085	Denver
Smith, R. G.	506 Metropolitan Bldg.	Main 0738	Denver
Snyder, H. W.	832 Republic Bldg.	Tabor 6309	Denver
Soland, L. W.	1014 Republic Bldg.	Tabor 3545	Denver
Sommer, H. O.	1744 Glenarm St.	Main 4381	Denver
Spangelberger, M. A.	601 Republic Bldg.	Keystone 0108	Denver
Spicer, C. M.	1106 Republic Bldg.	Keystone 2571	Denver
Spitzer, William M.	364 Metropolitan Bldg.	Tabor 0370	Denver
Staeck, F. C.	3145 Tejon St.	Gallup 1155	Denver
Stahl, A. W.	804 Republic Bldg.	Keystone 3801	Denver
Stander, T. C.	832 Republic Bldg.	Tabor 6309	Denver
Stander, T. R.	613 Republic Bldg.	Main 5284	Denver
Staunton, A. G.	835 Republic Bldg.	Tabor 1941	Denver
Stein, Herman B.	310 Republic Bldg.	Main 1553	Denver
Stephenson, F. B.	452 Metropolitan Bldg.	Tabor 4208	Denver
Stevens, J .L.	374 Knox Ct.	Spruce 8920	Denver
Strickler, D. A.	1520 York St.	York 1693	
Struthers, J. E.	904 Republic Bldg.	Main 0813	Denver
Stuver, H. W.	324 Majestic Bldg.	Main 1968	Denver
Sunderland, W. E.	705 Republic Bldg.	Main 0560	Denver
Swaggart, Luman B.	27 E. 1st Ave.	Pearl 7679	Denver
Swerdfeger, E. B.	1008 Republic Bldg.	Tabor 8324	Denver
Swigert, J. L.	1102 Republic Bldg.	Main 6509	Denver
Taylor, E. E.	505 Republic Bldg.	Main 3014	Denver
Taylor, H. L.	418 Majestic Bldg.	Main 0424	Denver
Tennant, C. E.	701 Majestic Bldg.	Keystone 4243	Denver
Tepley, Leo V.	804 Republic Bldg.	Tabor 2008	Denver
Thayer, M. D.	527 Majestic Bldg.	Tabor 2766	Denver
Thomas, Atha	418 Republic Bldg.	Keystone 5289	Denver
Thompson, David	766 Kalamath St.	Tabor 1754	Denver
Thompson, James E.	969 Acoma	Keystone 6967	Denver
Thompson, N. A.	946 Metropolitan Bldg.	Main 2232	Denver
Thulin, H. F.	57 So. Broadway	Spruce 0095	Denver
Tower, F. A.	302 Quincy Bldg.	Keystone 2444	Denver
Townsend, Guy W.	556 Metropolitan Bldg.	Main 2755	Denver
Triplett, T. A.	285 Majestic Bldg.	Keystone 3701	Denver
Troute, F. R.	1290 So. High St.	Pearl 3453	Denver
Ulmer, H. D.	1110 Republic Bldg.	Tabor 6632	Denver
Van Meter. L. M.	834 Republic Bldg.	Tabor 7978	Denver
Van Meter, S. D.	1621 Court Pl.	Main 1897	Denver
Van Meter, Virginia C.	1621 Court Pl.	Main 1897	Denver
Van Stone, L. M.	203 Metropolitan Bldg.	Main 1002	Denver
Van Stone, W. D.	1578 Humboldt St.	York 2343	Denver

DENVER (Continued)

Name	*Address*	*Telephone*	*Society*
Van Zant, C. B.	460 Metropolitan Bldg.	Keystone 7463	Denver
Verploeg, Ralph H.	1850 Gilpin St.	Franklin 4772	Denver
Von Detten, H. J.	1578 Humboldt St.	York 2343	Denver
Wade, L. H.	817 Majestic Bldg.	Keystone 7623	Denver
Waggener, W. R.	830 Metropolitan Bldg.	Main 0351	Denver
Walker, Chas. E.	517 Jacobson Bldg.	Tabor 7665	Denver
Wallace, G. C.	910 Republic Bldg.	Keystone 8037	Denver
Walton, J. B.	1003 Republic Bldg.	Tabor 3447	Denver
Waring, James J.	203 Metropolitan Bldg.	Main 1002	Denver
Warner, G. R.	1206 Republic Bldg.	Keystone 5124	Denver
Wasson, W. W.	246 Metropolitan Bldg.	Tabor 3037	Denver
Waters, P. A.	305 U. S. Customs House	Keystone 4151	Denver
Wear, Harry H.	915 Republic Bldg.	Tabor 8311	Denver
Weatherford, J. E.	300 Securities Bldg.	Franklin 2715	Denver
Weiner, M.	1035 Republic Bldg.	Tabor 6817	Denver
Weiss, F. H.	1449 Pennsylvania St.	Keystone 0996	Denver
Whitaker, H. L.	1234 Republic Bldg.	Main 2759	Denver
Whitaker, W. O.	1235 Republic Bldg.	Tabor 0626	Denver
White, H. T.	4201 W. 49th Ave.	Gallup 5899	Denver
Whitehead, R. W.	4200 E. 9th Ave.	York 8500	Denver
Whiteley, P. W.	818 Metropolitan Bldg.	Tabor 6063	Denver
Whitney, H. B.	564 Metropolitan Bldg.	Main 3300	Denver
Wilcox, H W.	904 Republic Bldg.	Keystone 3538	Denver
Williams, G. Z.	Room 607, 104 Broadway	Spruce 4831	Denver
Williams, Sherman	346 Metropolitan Bldg.	Main 1506	Denver
Williams, William Whittridge	503 Majestic Bldg.	Tabor 4312	Denver
Willis, C. H.	307 Railway Exchange Bldg.	Tabor 8418	Denver
Wilson, Amos L.	606 Metropolitan Bldg.	Main 4543	Denver
Wilson, R. E.	1008 Republic Bldg.	Tabor 8324	Denver
Winemiller, L. H.	1032 Republic Bldg.	Keystone 4812	Denver
Withers, Sanford M.	304 Republic Bldg.	Keystone 8633	Denver
Wolf, J. A.	310 Republic Bldg.	Tabor 1416	Denver
Wolfe, A. M	932 Republic Bldg.	Main 3470	Denver
Wollenweber, L. C.	808 Republic Bldg.	Keystone 8443	Denver
Wollgast, Geo. F.	1448 So. Broadway	Spruce 5118	Denver
Woodcock, W. C.	315 Emerson St.	Pearl 8464	Denver
Work, Hubert	324 Metropolitan Bldg.	Keystone 8333	Pueblo
Work, Philip	324 Metropolitan Bldg.	Keystone 8333	Denver
Workman, Cloyd W.	997 So. York St.	Pearl 6690	Denver
Worthington, A. K.	1554 California St.	Keystone 5061	Denver
Wright, G. M.	331 Mack Bldg.	Main 2426	Denver
Yegge, W. B.	436 Metropolitan Bldg.	Main 1346	Denver
Yont, Kate E. G.	Box 163, Highlands Station	Gallup 4649	Denver
Young, H. B.	330 Republic Bldg.	Tabor 1062	Denver
Zarit, John I.	266 Metropolitan Bldg.	Tabor 4289	Denver
Zimmerman, William	509 Mack Bldg.	Keystone 4837	Denver

DOLORES, COLORADO

Lefurgey, H. C.	Dolores	Dolores 68-R	San Juan

DURANGO, COLORADO

Burnett, A. L.	Kruschke Bldg.	Durango 212	San Juan
Darling, J. C.	Century Bldg.	Durango 60	San Juan
Downing, R. L.	126 W. 9th St.	Durango 161	San Juan
Haggart, John	Century Bldg.	Durango 330J	San Juan
Lingenfelter, H. A.	102 E. 8th St.	Durango 203	San Juan
Rensch, O. B.	Century Bldg.	Durango 441	San Juan
Walters, B. Frank	946 Main Ave.	Durango 322	San Juan-Denver

EADS, COLORADO

Mitchell, Lee Roy	Eads	Eads 22	Prowers

EAGLE

Hotopp, T. M. H.	Eagle	Eagle 48 F. 2	Garfield

EATON, COLORADO

Corbin, E. A.	Eaton	Eaton 6	Weld
Hall, A. Z.	Eaton	Eaton 135	Weld
Holden, E. G.	Eaton	Eaton 27W	Weld

EDGEWATER, COLORADO

Sunderland, O. R.	2503 Benton St.	Gallup 2796	Denver

ELBERT, COLORADO

Name	*Address*	*Telephone*	*Society*
Denney, R. H.	Elbert	Elbert 24-3	Denver

ENGLEWOOD, COLORADO

Alldredge, H. H.	3503 So. Broadway	Englewood 7W	Denver
Carpenter, Ralph Van	3533 So. Broadway	Englewood 18	Arapahoe & Denver
Catron, H. B.	3503 So. Broadway	Englewood 22	Arapahoe
Simon, John	3345 So. Broadway	Englewood 192W	Arapahoe

ERIE, COLORADO

Bixler, C. W.	Erie	Erie 22-R1	Boulder
Cooke, M. W.	Box 192	Erie 58	Boulder

ESTES PARK, COLORADO

Weist, Roy F.	Estes Park	Estes Park 41	Larimer

EVANS, COLORADO

Averill, H. W.	Evans	Evans 44-F1	Weld

FAIRPLAY

Burlingame, Robert M.	Fairplay	Fairplay 34	Denver
Dunkle, Frank	Fairplay	Fairplay 34	Chaffee

FLAGLER, COLORADO

Reid, E. W.	Flagler	Flagler 82	Kit Carson
Williams, H. L.	Flagler	Flagler 31J	Kit Carson

FLORENCE, COLORADO

Adkinson, Royal C.	Blunt Bldg.	Florence 128	Fremont
Hutton, Vardry A.	Blunt Bldg.	Florence 152	Fremont
Moore, F. R.	106½ W. Main St.	Florence 37	Fremont
Rupert, L. E.	119 E. 2nd St.	Florence 16	Fremont
Waroshill, A. D.	Daniels Blk.	Florence 218	Fremont

FORT COLLINS, COLORADO

Beebe, N. L.	Robertson Bldg.	Ft. Collins 343W	Larimer
Brown, Thad C.	Central Bldg.	Ft. Collins 170W	Larimer
Brownell, W. F.	Colorado Bldg.	Ft. Collins 219W	Larimer
Carey, J. D.	Poudre Valley National Bank Bldg.	Ft. Collins 204	Larimer
Carroll, Frank	Robertson Bldg.	Ft. Collins 2041W	Larimer
Cram, Victor E.	Physicians Bldg.	Ft. Collins 1048W	Larimer
DeMay, W. A.		Fort Collins 601	Larimer
Gleason, R. L.	Robertson Bldg.	Ft. Collins 440W	Larimer
Halley, S. C.	Colorado Bldg.	Ft. Collins 323	Larimer
Hartshorn, Daune F.	Physicians Bldg.	Ft. Collins 321W	Larimer
Hartshorn, F. H.	Physicians Bldg.	Ft. Collins 321W	Larimer
Haughey, I. W.	203 Trimble Bldg.	Ft. Collins 263W	Larimer
Honstein, C. E.	Colorado Bldg.	Ft. Collins 101W	Larimer
Humphrey, F. A.	Trimble Bldg.	Ft. Collins 560W	Larimer
Little, Lowell	Colorado Bldg.	Ft. Collins 669W	Larimer
McHugh, P. J.	P. O. Box 194	Ft. Collins 50W	Larimer
Platz, C. H.	Colorado Bldg.	Ft. Collins 889W	Larimer
Taylor, T. Clarkson	Physicians Bldg.	Ft. Collins 400	Larimer

FORT LUPTON, COLORADO

Monismith, A. T.	Fort Lupton	Ft. Lupton 6J	Weld

FORT LYON, COLORADO

Bondurant, Alphaeus J.	Fort Lyon	Las Animas 82	Otero
Cassidy, F. C.	Fort Lyon	Las Animas 82	Otero
Fulwider, Robert M.	Fort Lyon	Las Animas 82	Otero & Denver
Jackson, B. F.	Fort Lyon	Las Animas 82	Otero
Jones, Ralph P.	Fort Lyon	Las Animas 82	Otero
Stewart, N. E.	Fort Lyon	Las Animas 82	Otero

FORT MORGAN, COLORADO

Clark, I. J.	Times Bldg.	Ft. Morgan 499W	Morgan
Johnson, Harry A.	Morgan County Bank Bldg.	Ft. Morgan 37W	Morgan
Lockwood, F. W.	First National Bank Bldg.	Ft. Morgan 137	Morgan
Williams, A. F.	220 E. Beaver Ave.	Ft. Morgan 18	Morgan
Woodward, Paul E.	220 E. Beaver Ave.	Ft. Morgan 18	Morgan

FOWLER, COLORADO

Van Der Schouw, George	Fowler	Fowler 50W	Otero

FREDERICK, COLORADO

McCabe, F. G.	Frederick	Frederick 42	Boulder

FRUITA, COLORADO

Name	*Address*	*Telephone*	*Society*
Orr, James S.	Fruita	Fruita 4W	Mesa
White, H. W.	Fruita	Fruita 5W	Mesa

GENOA, COLORADO

Keller, Walter C.	Genoa	Geona 39	Kit Carson

GILMAN, COLORADO

Nutting, B. E.	Gilman	Call Long Distance	Chaffee

GLENWOOD SPRINGS, COLORADO

Cavanagh, J. L.	First National Bank Bldg.	Glenwood Springs 291W	Garfield
Crook, W. W.	First National Bank Bldg.	Glenwood Springs 162	Garfield
Hopkins, G. A.	Citizens National Bank Bldg.	Glenwood Springs 63W	Garfield
Porter, R. B.	First National Bank Bldg.	Glenwood Springs 25W	Garfield

GOLDEN, COLORADO

Garvin, D. E.	815 12th St.	Golden 68	Denver
Howlett, R. G.	Golden	Golden 99	Denver
Robinovitch, Louise G.	Golden	Golden	Denver

GRANADA, COLORADO

Thompson, Lewis N.	Granada	Granada	Prowers

GRAND JUNCTION, COLORADO

Bull, H. R.	Canon Bldg.	Grand Junction 101	Mesa
Cary, G. C.	Canon Bldg.	Grand Junction 839	Mesa
Day, H. S.	Fair Bldg.	Grand Junction 403	Mesa
De War, V. T.	Canon Bldg.	Grand Junction 306W	Mesa
Ford, J. E.	Reed Bldg.	Grand Junction 908W	Mesa
Hanson, K.	Canon Bldg.	Grand Junction 101	Mesa
McDonough, F. J.	Grand Valley Bank Bldg.	Grand Junction 79	Mesa
Munro, E. H.	Canon Bldg.	Grand Junction 839	Mesa
Peterson, E. H.	Margery Bldg.	Grand Junction 29	Mesa
Reed, C. W.	Margery Bldg.	Grand Junction 904	Mesa
Sickenberger, J. U.	Grand Valley Bank Bldg.	Grand Junction 926	Mesa
Stong, E. S.	Grand Valley Bank Bldg.	Grand Junction 62	Mesa
Taylor, A. G.	Currie Bldg.	Grand Junction 333W	Mesa
Tupper, Harvey M.	26 Canon Blk.	Grand Junction 555	Mesa

GRAND VALLEY, COLORADO

Miller, Fred H.	Grand Valley	Grand Valley	Garfield

GREELEY, COLORADO

Allen, W. P.	822½ 9th St.	Greeley 19	Weld
Atkinson, T. E.	Coronado Bldg.	Greeley 65	Weld
Bennell, O. E.	Greeley Union National Bank Bldg.	Greeley 163	Weld
Broman, O. F.	Greeley Bldg.	Greeley 528	Weld
Dyde, C. B.	Park Place Bldg.	Greeley 61W	Weld
Fezer, Florence	811 12th St.	Greeley 1944	Weld
Fuqua, J. W.	800½ 9th St.	Greeley 31W	Weld
Graham, R. F.	1129 7th St.	Greeley 1515	Weld
Greene, H. H.	320 Greeley Bldg.	Greeley 25	Weld
Hickman, W. E.	1522 Eighth Ave.	Greeley	Weld
Harmer, W. W.	Greeley Bldg.	Greeley 80W	Weld
Knowles, E. W.	Greeley Bldg.	Greeley 69W	Weld
Lehan, J. W.	Park Place Bldg.	Greeley 28-F1	Weld
Lux, Leo L.	Greeley Bldg.	Greeley 107W	Weld
Madler, N. A.	Greeley Bldg.	Greeley 25	Weld
Mead, Ella A.	Coronado Bldg.	Greeley 91	Weld
Peppers, Tracy D.	Central Bldg.	Greeley 433W	Weld
Ringle, C. A.	Coronado Bldg.	Greeley 65	Weld
Rupert, H. S.	410 Greeley Bldg.	Greeley 192W	Weld
Schoen, W. A.	Greeley Bldg.	Greeley 935W	Weld
Spaulding, W. F.	Greeley Bldg.	Greeley 261	Weld
Thompson, W. E.	Greeley Bldg.	Greeley 23-F1	Weld
Von Den Steinen, E.	State Teachers College	Greeley 2000	Weld
Weaver, J. A.	Greeley Bldg.	Greeley 70W	Weld
Wilmoth, T. C.	Central Bldg.	Greeley 380W	Weld
Woodcock, Burgett	Box 1376	Greeley 64J	Weld

GROVER, COLORADO

Levine, S. J.	Grover	Grover 2-R1	Weld

GUNNISON, COLORADO

McDonough, J. P.	Gunnison	Gunison 147	Chaffee
Plank, J. R.	Gunnison	Gunnison 147	Denver

HARTMAN, COLORADO

Name	*Address*	*Telephone*	*Society*
Fitzgerald, D. L.	Hartman	Hartman 7	Prowers

HAXTUN, COLORADO

Kinzie, J. W.	Haxtun	Haxtun 105-R2	Northeast
McKnight, J. H.	Haxtun	Haxtun 117-R2	Northeast
Mooney, W. E.	Haxtun	Haxtun 112-R3	Northeast

HAYDEN, COLORADO

Whittaker, D. L.	Hayden	Hayden 61	Northwestern

HOLLY, COLORADO

Casburn, F. E.	Holly	Holly 30W	Prowers
Nienhuis, John E.	Holly	Holly 37	Prowers

HOLYOKE, COLORADO

Hill, H. C.	Holyoke	Holyoke 6502	Northeast
Means, F. M.	Holyoke	Holyoke 4302	Northeast

HOTCHKISS, COLORADO

Myers, James T.	Hotchkiss	Call Long Distance	Delta

IDAHO SPRINGS, COLORADO

Atcheson, John	Idaho Springs	Idaho Springs 34	Denver
Beachly, J. V.	Idaho Springs	Idaho Springs 76J	Kit Carson

ILIFF, COLORADO

Houf, H. W.	Iliff	Iliff 7	Northeast

JULESBURG, COLORADO

Blanchard, L. W.	Julesburg	Julesburg	Weld
Folsom, C. H.	Julesburg	Julesburg 17W	Northeast

KERSEY, COLORADO

Van Landegham, F. P. N.	Kersey	Call Long Distance	Weld

KLINE, COLORADO

Smith, C. D.	Kline	Call Long Distance	San Juan

KREMMLING, COLORADO

Sudan, A. C.	Kremmling	Kremmling 3	Northwestern

LAFAYETTE, COLORADO

Braden, J. M.	Lafayette	Lafayette 24W	Boulder
Porter, V. W.	Lafayette	Lafayette 63	Boulder

LA JUNTA, COLORADO

Bennett, W. C.	McNeen Bldg.	La Junta 115	Otero
Calonge, G. E.	McNeen Bldg.	La Junta 186	Otero
Cooper, Thomas J.	Colorado Trust Bldg.	La Junta 84	Otero
Groshart, O. D.	Lamb Bldg.	La Junta 330	Otero
Hansen, A. S.	401 Smithland Ave.	La Junta 210	Otero
Johnston, R. S.	401 Smithland Ave.	La Junta 210	Otero
Morse, C. E.	McNeen Bldg.	La Junta 167	Otero
Sorenson, George	401 Smithland Ave.	La Junta 210	Otero
Stanley, George B.	Lamb Bldg.	La Junta	Otero

LAMAR, COLORADO

Burnett, N. M.	Lamar	Lamar 2	Prowers
Knuckey, Clyde T.	200½ So. Main St.	Lamar 92W	Prowers
Likes, L. E.	Lamar	Lamar 305W	Prowers
Rummell, R. J.	200½ So. Main St.	Lamar 74W	Prowers
Williams, George S.	101½ So. Main St.	Lamar 56W	Prowers

LA SALLE, COLORADO

Wilkinson, W. L.	La Salle	La Salle 18	Weld

LAS ANIMAS, COLORADO

Gaines, Joseph R.	Las Animas	Las Animas 348	Otero
Hagerman, S. V.	630 Carson Ave.	Las Animas 9	Otero
Hardy, J. O.	Las Animas	Las Animas 294	Otero

LA VETA, COLORADO

Lee, P. A.	La Veta	La Veta 18	Huerfano

LEADVILLE, COLORADO

Condon, Charles E.	Leadville	Leadville 10	Lake
McDonald, Franklin J.	Leadville	Leadville 121	Lake
Strong, J. C.	Leadville	Leadville 72W	Lake

LIMON, COLORADO

Kennedy, G. A.	Limon	Limon 19	Denver

LITTLETON, COLORADO

Name	*Address*	*Telephone*	*Society*
Crysler, W. C.	Coors Bldg.	Littleton 44	Arapahoe
Moore, G. C.	First National Bank Bldg.	Littleton 132W	Denver
Otte, J. E.	Coors Bldg.	Littleton 211	Denver

LONGMONT, COLORADO

Andrew, John	Longmont Hospital	Longmont 32J	Boulder
Dietmier, H. R.	Longmont Hospital	Longmont 25	Boulder
Evans, W. J.	Longmont National Bank	Longmont 888	Boulder
Hageman, George R.	Longmont Hospital	Longmont 867J	Boulder
Jernigan, V. J.	615 4th Ave.	Longmont 247	Boulder
Matlack, J. A.	Longmont Hospital	Longmont 137	Boulder
Sidwell, C. E.	Longmont Hospital	Longmont 200J	Boulder
White, W. J.	662 4th Ave.	Longmont 50	Boulder
Woods, W. P.	662 4th Ave.	Longmont 51	Boulder

LOUISVILLE, COLORADO

Crannell, Alvin E.	Louisville	Louisville 9W	Boulder
Miller, R. B.	Louisville	Louisville 18W	Boulder
Snair, W. L.	Louisville	Louisville 81	Boulder

LOVELAND, COLORADO

Adams, B. L.	Larimer County Bank Bldg.	Loveland 52	Larimer
Craig, James W.	Larimer County Bank Bldg.	Loveland 40	Larimer
Gasser, John J.	428 Lincoln Ave.	Loveland 656	Larimer
Gasser, W. P.	428 Lincoln Ave.	Loveland 656	Larimer
Joslyn, S. A.	Masonic Temple	Loveland 84	Larimer
McFadden, J. G.	433 N. Lincoln Ave.	Loveland 16	Larimer
Stewart, M. J.	Larimer County Bank Bldg.	Loveland 171	Larimer
Wright, R. E.	349 Jefferson Ave.	Loveland 152	Larimer

MANCOS, COLORADO

Trotter, J. R.	Mancos	Mancos 60M	San Juan

MANITOU, COLORADO

Beck, L. H.	Manitou	Hyland 10	El Paso
Winston, A. L.	Manitou	Hyland 2	El Paso

MANZANOLA, COLORADO

Adams, V. K.	Manzanola	Manzanola 24W	Otero

McPHEE, COLORADO

Speck, R. T.	McPhee	McPhee	San Juan

MEEKER, COLORADO

Farthing, C. H.	Meeker	Meeker 4	Garfield

MILLIKEN, COLORADO

Fuson, Carl C.	Milliken	Milliken 16W	Weld

MINTURN, COLORADO

Dymenberg, Noah	Minturn	Redcliff 78-J3	Denver

MONTE VISTA, COLORADO

Taylor, R. D.	Monte Vista	Monte Vista 22W	San Luis Valley

MOUNT HARRIS, COLORADO

Sloan, W. W.	Mount Harris		Northwestern

MONTROSE, COLORADO

Brethouwer, C. G.	Box 247	Montrose 399	Montrose
Didrickson, F. G.	602 Main St.	Montrose 29	Montrose
Knott, Isaiah	Keller Bldg.	Montrose 99J	Montrose
Lockwood, Chas. E.	Keller Bldg.	Montrose 137W	Montrose
Spring, John A.	602 Main St.	Montrose 29	Montrose

MORLEY, COLORADO

Parker, Thadd	Morley	Call Trinidad Long Distance	Las Animas

NEW RAYMER, COLORADO

Olson, D. G.	New Raymer	Call Long Distance	Weld

NEW CASTLE, COLORADO

Evans, W. W.	New Castle	New Castle 18-J3	Garfield

OAK CREEK, COLORADO

Courtney, R. F.	Oak Creek	Oak Creek 73	Northwestern
Morrow, E. L.	Oak Creek	Oak Creek 29	Northwestern

OLATHE, COLORADO

Name	*Address*	*Telephone*	*Society*
Winningham, J. J.	Olathe	Olathe 125	Montrose

OLNEY SPRINGS, COLORADO

Hipp, J. A.	Olney Springs	Ordway 85-R4	Crowley

ORDWAY, COLORADO

Desmond, Wm. M.	Ordway	Ordway 154	Crowley
Jeffery, J. E.	Ordway	Ordway 3	Crowley
McCleary, E. O.	Ordway	Ordway 16	Crowley

OVID, COLORADO

Peterson, A. E.	Ovid	Ovid 39	Northeast

PAGOSA SPRINGS, COLORADO

Miskoweic, A.	Pagosa Springs	Call Long Distance	San Juan

PAONIA, COLORADO

Hazlett, H. W.	Paonia	Call Long Distance	Delta

PHIPPSBURG, COLORADO

Fleming, W. S.	Phippsburg	Oak Creek 70-R1	Northwestern

PIERCE, COLORADO

Mitchell, D. M.	Pierce	Pierce 4W	Weld

PLATTEVILLE, COLORADO

Kern, B. F.	Platteville	Platteville 8W	Weld
Scheidt, J. H.	Platteville		Weld

PORTLAND, COLORADO

Davis, T. A.	Portland	Florence 186-J2	Fremont

PUEBLO, COLORADO

Baker, W. T. H.	702 No. Main St.	Pueblo 6000	Pueblo
Black, H. A.	702 No. Main St.	Pueblo 6000	Pueblo
Bordner, Alta E.	State Hospital	Pueblo 3451	Pueblo
Buck, W. E.	New City Hall	Pueblo 370	Pueblo
Burkhard, Edwin	544 Thatcher Bldg.	Pueblo 679	Pueblo
Caldwell, C. N.	Thatcher Bldg.	Pueblo 483	Pueblo
Clyman, Irving	Colorado Bldg.	Pueblo 465M	Pueblo
Corry, E. H.	Corwin Hospital	Pueblo 1210	Pueblo
Craighead, J. W.	Corwin Hospital	Pueblo 1210	Pueblo
Crozier, R. B.	513 Broadway	Pueblo 2189	Pueblo
Davis, Roy E.	Colorado Fuel & Iron Co. Dispensary	Pueblo 130	Pueblo
Draper, P. A.	Woodcroft Hospital	Pueblo 84	Pueblo
Dunlop, Josephine N.	Corwin Hospital	Pueblo 1210	Pueblo
Earnest, Clarence E.	414 Thatcher Bldg.	Pueblo 86	Pueblo
Epler, Crum	650 Thatcher Bldg.	Pueblo 400	Pueblo
Farley, John B.	544 Thatcher Bldg.	Pueblo 483	Pueblo
Finney, R. H.	Corwin Hospital	Pueblo 1210	Pueblo
Geissinger, J. D.	702 No. Main St.	Pueblo 6000	Pueblo
Glather, A. W.	State Hospital	Pueblo 3451	Pueblo
Heller, F. M.	650 Thatcher Bldg.	Pueblo 400	Pueblo
Hopkins, G. H.	702 No. Main St.	Pueblo 6000	Pueblo
Hutchinson, Wm.	C. F. & I. Dispensary	Pueblo 130	Pueblo
Ireland, P. M.	Corwin Hospital	Pueblo 1210	Pueblo
James, W. A.	C. F. & I. Dispensary	Pueblo 130	Pueblo
Johnston, W. S.	208 Colorado Bldg.	Pueblo 50	Pueblo
LaMoure, H. A.	1155 Longwood	Pueblo 84	Pueblo
Lassen, Fritz	702 No. Main St.	Pueblo 6000	Pueblo
Low, H. T.	650 Thatcher Bldg.	Pueblo 400	Pueblo
Lowe, Wilbur	232 Colorado Bldg.	Pueblo 1936	Pueblo
Luqueer, F. A.	702 No. Main St.	Pueblo 6000	Pueblo
Marmaduke, C. V.	Colorado Bldg.	Pueblo 1936	Pueblo
Mast, W. H.	402 Colorado Bldg.	Pueblo 140	Pueblo
Maynard, C. W.	702 No. Main St.	Pueblo 6000	Pueblo
McDonnell, J. J.	103 Broadway	Pueblo 232	Pueblo
Merriman, Amherst	Colorado Bldg.	Pueblo 140	Pueblo
Myers, George M.	702 No. Main St.	Pueblo 6000	Pueblo
Nelson, Samuel	216 Colorado Bldg.	Pueblo 1871	Pueblo
Nicoletti, Frank	302 Colorado Bldg.	Pueblo 1319	Pueblo
Norman, J. S.	Corwin Hospital	Pueblo 1210	Pueblo
Pattee, J. J.	Thatcher Bldg.	Pueblo 241	Pueblo
Patterson, W. O.	Pope Bldg.	Pueblo 757	Pueblo
Peirce, F. J.	650 Thatcher Bldg.	Pueblo 400	Pueblo
Prior, Frank H.	650 Thatcher Bldg.	Pueblo	Pueblo
Redd, Rufus K.	1236 E. Evans St.	Pueblo 4158	Pueblo

PUEBLO (Continued)

Name	*Address*	*Telephone*	*Society*
Rice, George E.	702 No. Main St.	Pueblo 6000	Pueblo
Rich, W. F.	Thatcher Bldg.	Pueblo 1154	Pueblo
Robe, R. C.	Thatcher Bldg.	Pueblo 333	Pueblo
Rosenbloom, Julius Lee	Colorado State Hospital	Pueblo 3451	Pueblo
Rusk, H. S.	Colorado Bldg.	Pueblo 174	Pueblo
Schwer, J. L.	736 Thatcher Bldg.	Pueblo 282	Pueblo
Senger, William	Corwin Hospital	Pueblo 1210	Pueblo
Singer, W. F.	114 W. 9th St.	Pueblo 80	Pueblo
Snedec, J. F.	650 Thatcher Bldg.	Pueblo 400	Pueblo
Steinhardt, E. H.	114 W. Grant	Pueblo 5936	Pueblo
Stoddard, T. A.	Thatcher Bldg.	Pueblo 483	Pueblo
Streamer, C. W.	401 Colorado Bldg.	Pueblo 140	Pueblo
Taylor, R. R.	401 Colorado Bldg.	Pueblo 587	Pueblo
Thompson, J. W.	Thatcher Bldg.	Pueblo 480	Pueblo
Unfug, G. A.	316 Colorado Bldg.	Pueblo 383	Pueblo
Vogt, H. J.	103 Broadway	Pueblo 232	Pueblo
Ward, L. L.	316 Colorado Bldg.	Pueblo 383	Pueblo
White, J. W.	702 No. Main	Pueblo 6000	Pueblo
Wise, O. C.	516 Thatcher Bldg.	Pueblo 142	Pueblo
Wolf, John G.	335 Colorado Bldg.	Pueblo 153	Pueblo
Woodbridge, J. H.	650 Thatcher Bldg.	Pueblo 400	Pueblo
Zimmerman, F. H.	Colorado State Hospital	Pueblo 3451	Pueblo

RIDGE, COLORADO

Pershing, C. L.	Ridge	Arvada 133	Denver

RIFLE, COLORADO

Andrus, L. F.	Rifle	Rifle	Denver
Clagett, O. F.	Rifle	Rifle 63W	Garfield
Sands, G. M.	Rifle	Rifle 85	Garfield

ROCKY FORD, COLORADO

Baker, G. M.	409 S. Main	Rocky Ford 318J	Crowley
Blotz, B. B.	First National Bank Bldg.	Rocky Ford 100	Otero
Blotz, B. F.	First National Bank Bldg.	Rocky Ford 100	Otero
Fenton, W. C.	918 Elm Ave.	Rocky Ford 363J	Otero
Lawson, J. A.	209½ No. Main St.	Rocky Ford 80J	Otero

SAGUACHE, COLORADO

Gotthelf, I. L.	Saguache	Saguache 86F1	San Luis Valley
Shippey, O. P.	Saguache	Saguache 23	San Luis Valley

SALIDA, COLORADO

Bender, A. J.	Hively Bldg.	Salida 27	Lake
Cochems, F. N.	Third & G Sts.	Salida 63	Lake
Curfman, George H.	1st & F Sts.	Salida 156	Chaffee
Fuller, C. R.	1st & F. Sts.	Salida 80	Chaffee
Larimer, G. W.	Rio Grande Hospital	Salida 145W	Chaffee
Parker, O. T.	Sandusky Bldg.	Salida 50	Chaffee
Thompson, L. E.	Woolworth Bldg.	Salida 133	Chaffee

SEGUNDO, COLORADO

Drisdale, W. E.	Segundo	Trinidad 0312-J4	Las Animas

SEIBERT, COLORADO

McBride, William L.	Seibert	Seibert 14-W	Kit Carson

SILVERTON, COLORADO

Smith, A. E.	Box 8	Silverton 8	Denver

SIMLA, COLORADO

Groves, Dale O.	Simla	Simla 33	El Paso

SOMERSET, COLORADO

McConnell, J. E.	Somerset	Call Long Distance	Delta

SPRINGFIELD, COLORADO

Bryant, W. A.	Springfield	Springfield 10	Prowers

STEAMBOAT SPRINGS, COLORADO

Turner, Duane	Steamboat Springs		Northwestern
Willett, F. E.	Steamboat Springs	Steamboat Springs 44	Northwestern

STERLING, COLORADO

Name	*Address*	*Telephone*	*Society*
Barney, N. Eugenia	317 No. 4th St.	Sterling 1012	Northeast
Becker, H. J.	108 No. 3rd St.	Sterling 267	Northeast
Daniel, J. H.	Henderson Bldg.	Sterling 242W	Northeast
Elliff, E. A.	108 No. 3rd St.	Sterling 993W	Northeast
Hays, W. E.	Raabe Bldg.	Sterling 704W	Northeast
Hummel, E. P.	Commercial Bldg.	Sterling 501W	Northeast
Latta, C. J.	123 So. 2nd St.	Sterling 468W	Northeast
Morehouse, J. A.	221 Main St.	Sterling 766W	Northeast
Naugle, J. E.	Henderson Bldg.	Sterling 787	Northeast
Palmer, F. E.	Henderson Bldg.	Sterling 327W	Northeast
Schmitt, O. J.	123 So. 2nd St.	Sterling 323-W	Northeast
Tripp, C. I.	123 So. 2nd St.	Sterling 178W	Northeast

STRASBURG, COLORADO

Lewark, Sarah D. H.	Strasburg	Strasburg 1	Arapahoe

TELLURIDE, COLORADO

Mollohan, C. S.	Telluride	Telluride 20	Montrose

TIOGA, COLORADO

Fowler, J. R.	Tioga	Walsenburg 08-J1	Huerfano

TRINIDAD, COLORADO

Abrums, H. E.	105 E. Main St.	Trinidad 8?	Las Animas
Adams, O. F.	201½ E. Main St.	Trinidad 1260	Las Animas
Albi, M. C.	Turner Bldg.	Trinidad 1	Las Animas
Beshoar, Ben B.	234½ No. Commercial St.	Trinidad 3	Las Animas
Carmichael, P. W.	McCormick Bldg.	Trinidad 346	Las Animas
Costigan, D. D.	Opera House Bldg.	Trinidad 15	Las Animas
Espey, J. G.	Main & Animas Sts.	Trinidad 2	Las Animas
Espey, John R.	335 E. Main St.	Trinidad 67	Las Animas
Freudenthal, A.	Samuel Bldg.	Trinidad 356	Las Animas
McClure, Charles O.	127 No. Commercial St.	Trinidad 447W	Las Animas
Newburn, Walter L.	Opera House Bldg.	Trinidad 848	Las Animas
Richie, Lee T.	McCormick Bldg.	Trinidad 163	Las Animas
Thompson, David G.	201½ E. Main St.	Trinidad 281	Las Animas

TWO BUTTES, COLORADO

Verity, William P.	Two Buttes	Two Buttes 8J	Prowers

VICTOR, COLORADO

Condit. E. G.	Victor	Cripple Creek 99	San Juan

WALSENBURG, COLORADO

Andrews, George D.	513 Main St.	Walsenburg 134W	Huerfano
Chapman, W. S.	118 E. 5th St.	Walsenburg 324	Huerfano
Lamme, J. M.	Walsenburg	Walsenburg 178	Huerfano
Lamme, S. J.	Walsenburg	Walsenburg 178	Huerfano
Matthews, P. G.	Kearns Bldg.	Walsenburg 92W	Huerfano
Noonan, George M.	118 E. 5th St.	Walsenburg 324	Huerfano
Stanley, A. F.	Walsenburg	Walsenburg 633	Huerfano

WELDONA, COLORADO

Hawthorne, H. M	Weldona	Weldona 3	Morgan

WELLINGTON, COLORADO

Betts, F. A.	Wellington	Wellington 8W	Larimer

WHEATRIDGE, COLORADO

Masten, A. R.	Lutheran Sanitarium	Arvada 633	Denver

WILEY, COLORADO

Housel, C. L.	Wiley	Wiley 54	Prowers

WINDSOR, COLORADO

Bartz, L. E.	Windsor	Windsor 5	Weld
Haskell, E. E.	Windsor	Windsor 113	Weld
Nelson, G. E.	Windsor	Windsor 113	Weld

WOODMEN, COLORADO

Downing, E. D.	Woodmen	Colorado Springs—Main 1165	El Paso
Forney, F. A.	Woodmen	Colorado Springs—Main 1165	El Paso
Harris, C. E.	Woodmen	Colorado Springs—Main 1165	El Paso
Schultz, H. H.	Woodmen	Colorado Springs—Main 1165	El Paso

YAMPA, COLORADO

Male, J. T.	Yampa	Yampa	Northwestern

YUMA, COLORADO

Name	Address	Telephone	Society
Bennett, C. J.	Yuma	Yuma 73	Northwestern
Flaten, A. P.	Yuma	Yuma 278	Morgan

OUT OF STATE

Name	Address	Postoffice	Society
Allen, Alfred G.	Deadwood	Deadwood, S. D.	Denver
Anderson, George M.	Boyd Bldg.	Cheyenne, Wyo.	Denver
Charney, Herman	Oneida County Hospital	Rome, N. Y.	Pueblo
Chesmore, H. P.	Stewartsville	Stewartsville, Mo.	El Paso
Cook, R. C.	Veterans' Administration Hospital	Excelsior Springs, Mo.	Denver & Otero
Cornell, H. M.	Dulce	Dulce, N. M.	San Juan
Dunham, Jas. I.	Chama	Chama, N. M.	San Juan
Dunlap, Florence M.	308 Wilshire Medical Bldg.	Los Angeles, Calif	Denver
Earp, J. R.	Box 750	Santa Fe, N. M.	Denver
Eikner, W. T.	1231 9th St.	Santa Monica, Calif.	Denver
Ellis, A. G.	Bangkok	Bangkok, Siam	El Paso
Fleishman, Max	4506 Poppleton Ave.	Omaha, Nebr.	Denver
Gellenthein, Carl Herman	Valmora Sanitarium	Valmora, N. M.	Denver
Groom, R. J.	Alsup Clinic	Honolulu, T. H.	Denver
Howard, C. J.	U. S. Veterans Hospital	Rutland Heights, Mass.	Denver
Johnson, E. R.	Fort Mackenzie	Sheridan, Wyo.	Denver
Laverty, Lucius F.	% E. R. Squibb & Sons	San Francisco, Calif.	Denver
Kampmeier, Rudolph H.	Louisiana State University	New Orleans, La.	Pueblo
Leavitt, Byron C.	Millbrook	Millbrook, Mass.	Denver
Lee, George F.	Hot Lake Sanitarium	Hot Lake, Ore.	Denver
McArthur, A. W.	Chillicothe	Chillicothe, Mo.	Delta
McGill, Earl D.	3923 Warwick Blvd.	Kansas City, Mo.	Denver
McGillicuddy, O. B.	Lansing	Lansing, Mich.	Denver
Menkel, H. C.	Simla	Simla, India	Denver
Mix, Walter S.	Beardstown	Beardstown, Ill.	Denver
Nelson, H. H.	Fort Stanton	Fort Stanton, N. M.	Denver
O'Byrne, George T.	4956 Maypole Ave.	Chicago, Ill.	Otero
Peterson, E. A.	Medical Arts Bldg.	Dallas, Texas	Denver
Price, Ligon	Fairmount Hospital No. 6	Fairmount, W. Va.	Denver
Pugh, C. G.	Laramie	Laramie, Wyo.	Larimer
Reid, H. S.	Desert Inn	Palm Springs, Calif.	Denver
Richardson, H. L.	1344 Connecticut Ave.	Washington, D. C.	El Paso
Reifsneider, J. Stanley	Wellington, Kansas	Wellington	Northeast
Richie, G. T.	Sunrise	Sunrise, Wyo.	Denver
Robinson, E. F.	2039 E. 4th St.	Long Beach, Calif.	Denver
Salisbury, E. I.	326 Park Blvd.	Marion, Ohio	Denver
Schwer, Carl	Box 309	Sedro Woolley, Wash.	Denver
Skinner, M. G.	1832 Kilbourne St., N. W.	Washington, D. C.	Denver
Stemen, W. E.	765 Bedford Road	Gross Point Park, Mich.	Denver
Stickles, Albert	467 Bevervil Drive	Beverley Hills, Calif.	Otero
Thompson, C. W.	Las Encinas Sanitarium	Pasadena, Calif.	Pueblo
Tidd, C. H.	539 N. Hoover	Whittier, Calif.	Delta
Tirador, P. A.	Winnebago	Winnebago, Nebr.	Pueblo
West, T. J.	657 W. California St.	Pasadena, Calif.	Denver

HONORARY MEMBERS

Richard C. Cabot	Cambridge, Mass.	John Ridlon	Chicago, Ill.
Livingston Farrand	Ithaca, N. Y.	William Robert Tyndale	Salt Lake City, Utah
Chas. H. Mayo	Rochester, Minn.	L. B. Wilson	Rochester, Minn.
Lewis Linn McArthur	Chicago, Ill.		

ASSOCIATE MEMBERS

Name	Local Address	Postoffice	Constituent Society
W. C. Bane	1005 Republic Bldg.	Denver	Denver
N. W. Bellrose	Eaton	Eaton	Weld
Sherman G. Bonney	1128 Grant St.	Denver	Denver
Col. E. H. Bruns	Fitzsimons Hospital	Aurora	Denver
D. I. Christopher	1028 N. Wahsatch St.	Colorado Springs	El Paso
Edgar F. Conant	823 Republic Bldg.	Denver	Denver
George B. Crews	3135 W. 44th Ave.	Denver	Denver
M. R. Fox	Boulder	Boulder	Northeast
William W. Grant	930 Pennsylvania St.	Denver	Denver
William Greig	1267 Pearl St.	Denver	Northeast
Allen H. Harris	969 Acoma St.	Denver	Denver
A. I. Hayes	505 Republic Bldg.	Denver	Denver
E. C. Hill	1101 E. Alameda Ave.	Denver	Denver
Hills, W. W.	18 North Tejon	Colorado Springs	El Paso
W. P. Hunnicutt	Hawthorne	Hawthorne, Calif.	Pueblo
Lt. Col. Paul C. Hutton		San Francisco, Calif.	Denver

ASSOCIATE MEMBERS (continued)

Name	*Local Address*	*Postoffice*	*Constituent Society*
Charles Jaeger	632 Republic Bldg.	Denver	Denver
M. Kleiner	1024 Republic Bldg.	Denver	Denver
George F. Libby	1319 Wilmot Place	Victoria, B. C.	Denver
Lorenz B. Lockard	655 Gaylord St.	Denver	Denver
Minnie C. T. Love	175 So. Lafayette St.	Denver	Denver
J. H. McKay	505 Republic Bldg.	Denver	Denver
H. W. McLauthlin	532 Republic Bldg.	Denver	Denver
Luke McLean	311 E. Evans Ave.	Pueblo	Pueblo
J. H. Madden	1401 W. Colorado Ave.	Colorado Springs	El Paso
Wilbur F. Martin	1303 N. Tejon St.	Colorado Springs	El Paso
Samuel W. Miller	550 Metropolitan Bldg.	Denver	Denver
Ogilbee, H. M.	Manitou	Manitou	El Paso
Ramaley, Francis	972 Pleasant St.	Boulder	Boulder
J. E. Scannell	East Andover	New Hampshire	Las Animas
O. W. Spicer	423 N. Weber St.	Colorado Springs	El Paso
G. W. Stiles	440 P. O. Bldg.	Denver	Denver
C. F. Taylor	802 W. 13th St.	Pueblo	Pueblo
Horace G. Wetherill	1085 W. Franklin St.	Monterey, Calif.	Denver
Newton Wiest	1754 Albion St.	Denver	Denver
Sara C. Wilcox	904 Republic Bldg.	Denver	Denver
Aubrey H. Williams	1024 Republic Bldg.	Denver	Denver

THIS DIRECTORY IS REMOVABLE

The foregoing directory of members, corrected to December 1, 1932, has been placed in the center of the bound pages of this issue of Colorado Medicine. Members wishing to separate it from the journal and keep it for handy desk reference will therefore find that this can be done without tearing the pages. Bend back the wire stiches between pages 506 and 507, and remove the twenty-page directory (pages 497 to 516, inclusive).

The Executive Secretary will appreciate immediate notification of any error that may have crept into this directory.

A few reprints of this directory will be prepared and will be available at twenty-five cents per copy.

WYOMING SECTION

President, F. L. Beck, Cheyenne
Vice President, J. L. Wicks, Evanston
President-elect, H. L. Harvey, Casper
Secretary, Earl Whedon, Sheridan
Treasurer, Evald Olson, Meeteetse
Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne
Councillors: G. P. Johnston, Cheyenne J. H. Goodnough, Rock Springs F. C. Shafer, Douglas
Medical Defense Committee: Earl Whedon, Sheridan R. H. Sanders, Rock Springs E. L. Jewell, Shoshoni

EDITOR:
EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT



FREDERICK LEWIS BECK

President Wyoming State Medical Society

Frederick Lewis Beck, Our President

BORN in Illinois in 1871 and reared in Nebraska, Frederick Lewis Beck is maturing in Wyoming. Teaching a country school at eighteen, attending normal school during vacations, beginning the study of medicine at twenty-two, teaching again and principal of a village school eight years and at the same time working under Dr. Royal Woods at Shickley, Neb., as preceptor, filled his time until 1900.

On September 7, 1897, he was married to Miss Lillian White of Lincoln, Neb. Through these thirty-five years she has been his constant inspiration and help. Their son and four daughters have been a spur to more intense effort for which the parents feel amply repaid.

Graduated in medicine in 1903, Dr. Beck engaged in general practice in Nebraska fourteen years. Postgraduate work in Chicago and a year in the office of Dr. Harold Gifford in Omaha preceded the devotion of his entire time to ophthalmology and otolaryngology. He came to Cheyenne in 1920 as associate of Dr. George L. Strader, pioneer in that work in Wyoming.

At the opening of the war, being refused admission to the Army Medical Corps, on account of his dependents and the need of his community for his services, he was appointed by the War Department as medical member of the local board for his county. In this capacity he examined many hundreds of men for the draft army, and, with the other members of the Board, passed upon their applications for exemption.

He has had a liberal share of honors and responsibilities given him by civic, church and professional organizations. As medical examiner and advisor of city schools for ten years, city physician, county health officer, as delegate to his church's world convention, he has rendered real service. Member of the various societies, he has served as secretary and as president of his county medical society in Nebraska, secretary and president of the Laramie County Medical Society in Wyoming, secretary and president of Memorial Hospital Staff, Cheyenne, and president of the Colorado Otolaryngological Society. For years he has been a Fellow of the American Medical Association and more recently a Fellow of the American Academy of Ophthalmology and Otolaryngology and of the American College of Surgeons.

As president of the Wyoming State Medical Society for 1932-1933 Dr. Beck is pledging his best effort in the interest of the medical profession of Wyoming.

Congratulations

THE Medical Profession of Wyoming extend to Dr. R. H. Sanders of Rock Springs, Dr. J. L. Wicks of Evanston, Dr. J. F. Replogle and Dr. L. C. Hunt of Lander congratulations. All of these men are outstanding in their own localities and the people of Wyoming are indeed fortunate to have such men to help make their laws.

Leslie Miller is a man who will make a great Governor and Scientific Medicine can look forward to his term of office as one which will stand out as a bright spot in Wyoming history. To the new Governor and the Legislature, we extend our kindest wishes and pledge the co-operation of the Wyoming doctors to a plan of economy and anything which will add to the health and happiness of the people of Wyoming.

Physicians of Wyoming, Greeting

IT WILL be a pleasure to preside over the Wyoming State Medical Society this year. While our society is small and its membership widely scattered, a large percentage of its members are from the very best schools of the country. Many make it a part of their business to attend the county or district and state meetings. A few—too few—attend the annual sessions of the A. M. A., the American College of Surgeons, and other national gatherings.

Very many are securing additional instruction in clinics here and there. A few stay long enough to make these visits worth while and of maximum benefit in their prac-

tice. Much more post-graduate work would be helpful to our men, regardless of the number of professional journals read and other efforts made to keep abreast of the times.

Our gratitude is due the five physicians who made the sacrifice of time and money in offering themselves to the people of the state in order that the health of the community might have some representation in our legislative body. That two of the five fell by the wayside, one in the primary and one in the general election, is no fault of theirs and does not detract from the sincerity of their sacrifice. Three were elected, two Democrats and one Republican, two to the House and one to the Senate. Regardless of politics, their service along medical lines will be absolutely impartial and in the interest of all the people.

You may expect to hear from the President either directly or through this journal from time to time, and I am confident that your cooperation will be at command.

Very truly yours,

F. L. BECK.

Obituary

Edward Ray Schunk

High up in his beloved Big Horn Mountains, Dr. Edward Ray Schunk died of heart failure. For several weeks he had been ill, but was improving. In order to rest had joined some friends on a hunting trip. He wished to get away where the appeal of the sick could not reach him inasmuch as he was too weak to respond to them in his way. Then too, he loved the Big Horn Mountains, loved to be up there with his friends. His sturdy nature demanded the rugged, clear beauty of the Big Horns and they alone could comfort and rest his active spirit. There among them he passed away October 25, 1932.

Dr. Schunk was born January 20, 1884 at Wayside, Wis. Four years later his parents moved to Anselm, North Dakota, where he graduated. In 1910 received his Medical Degree from the Chicago College of Medicine and Surgery. An internship in the Norweigian Lutheran Deaconess Hospital of Chicago followed his graduation as a doctor.

In 1911 he located in Ranchester, Wyoming, and in a short time took a medical contract at Deitz which he successfully carried out from 1912 to 1917. He entered the army May 13, 1918, and served until the end of the World War at Fort Riley, Kansas, and Fort Deming, New Mexico.

Following the army service he did post-graduate work in Chicago for three months in 1919. He then came to Sheridan where he has enjoyed a very large general practice, a large part of which was surgical. He married Miss Elva C. Bradley of Plano, Illinois April 30, 1913, and to whom the sympathies of the members of the Medical Profession of Wyoming and thousands of friends are extended. Dr. Edward R. Schunk was the friend of the poor people of Northern Wyoming and Southern Montana and his loss will be keenly felt. He was one of the outstanding surgeons of Wyoming and he gave great promise for the years to come.

For six years he associated with his brother, William, in the practice of medicine and surgery. He was a member of the following organizations—Masons, Elks, Knights of Pythias, Eagles, Yeomen, Phi Chi, Sheridan County, Wyoming State, and American Medical Associations. We all shall miss him deeply.

W. W. Yates

As we go to press we have learned of the death of Dr. W. W. Yates of Casper, and next month we shall give a more complete history of one more outstanding medical man who has finished his life's work.

Mortality Experience of the First Nine Months of 1932

Every indication, up to the end of the third quarter of 1932, is that 1932 will be a record health year in the industrial populations of both the United States and Canada. The death rate for three-quarters of the year among the many millions of Metropolitan Industrial policyholders was at the astonishingly low figure of 8.7 per 1,000. This is well below the previous minimum for the corresponding part of any year. All sections of the United States have shared in this excellent health record; and the picture is equally favorable in Canada. Furthermore, such data as are available for the population at large show that health conditions throughout 1932 have been unprecedentedly good. The year has been singularly free from widespread epidemics and from major catastrophes.—Statistical Bulletin, Metropolitan Life Insurance Co.

"The noblest charity is to prevent a man from accepting charity; and the best alms are to show how, and to enable a man, to dispense with alms."

"We have the courage to destroy beautiful things for personal gain. Why not foster community courage for the destruction of ugly things for the common good?"

THIRTIETH ANNUAL SESSION, WYOMING STATE MEDICAL SOCIETY

ROCK SPRINGS, WYO., JULY 18, 19, 1932

The following reports, which were read at the Rock Springs meeting, are herewith presented as a part of the minutes of that meeting. The remainder of the minutes will appear in the January, 1933, issue of Colorado Medicine.

* * *

REPORT OF THE TREASURER

To the officers and members of Wyoming State Medical Society in Convention Assembled at Rock Springs, Wyoming, July 18, 1932: Your Treasurer begs to submit the following report:

GENERAL FUND

Debit

1931			
Aug. 1	To Balance	$ 269.28	
1932			
July 15	To Cash received from Dr. Whedon	720.00	

Credit

July 15	By vouchers No. 151-166 inclusive		$ 774.37
July 15	By Balance		214.91
		$ 989.28	$ 989.28

DEFENSE FUND

Debit

1931			
July 14	To Balance	$ 840.87	
1932			
July 15	To Cash received from Dr. Whedon	720.00	
Jan. 22	To Cash received from Dr. Whedon for coupons clipped from Bonds in Sheridan Bank up to and including Dec. 15, 1931	371.22	

Credit

1931			
July 28	By check to Dr. Mills		$ 221.22
July 28	By check to Dr. Harris		10.00
1932			
Jan. 31	Bought 1 U. S. Treasury Bond par value $1,000 $894.69 Accrued interest $4.32, Commission $1.50		900.51
June 23	Bought 1 U. S. Treasury Bond par value $500 $493.61, interest $.59		494.20
July 15	By Balance		306.16
		$1,932.09	$1,932.09

U. S. TREASURY BOND ACCOUNT

1931			
July 1	To Balance	$7,006.40	
1932			
Jan. 31	To 1—$1.000 U. S. Treasury Bond $894.69, accrued interest, $4.32, Commission $1.50	900.51	
June 23	To 1—$500 U. S. Treasury Bond $493.61, accrued interest $.59	494.20	
July 15	To Balance		$8,401.11
		$8,401.11	$8,401.11

INTEREST ACCOUNT

1931			
July 1	By Balance		$ 402.19
1932			
Jan. 22	By 36 coupons clipped by Dr. Whedon up to and including December 15, 1931		371.22
July 15	To Balance	$ 773.41	
		$ 773.41	$ 773.41

RESOURCES

1932		
July 15	U. S. Treasury Bonds deposited in safety deposit box in bank at Sheridan, par value	$7,000.00
	U. S. Treasury Bonds deposited in safety deposit box in bank at Cody, par value	1,500.00
	Cash in First National Bank of Meeteetse	521.07
	TOTAL	$9,021.07

Respectfully submitted,
EVALD OLSON,
Treasurer.

REPORT OF THE SECRETARY

As your Secretary, I take pleasure in making this, my fourteenth annual report. In the December 1931 number of Colorado Medicine will be found in the minutes of the meeting of the House of Delegates held at Rawlins, July 13th and 14th, 1931, together with the annual report of the Treasurer, Dr. Evald Olson, and my report as Secretary. Also in that number appears a complete roster with addresses of the membership of the Society.

All officers and committees elected and appointed were notified at once following that meeting.

Your Secretary has collected for 1932 the yearly dues of 138 members against 141 for 1931, but he also collected for 6 members for 1931 since the Rawlins meeting of July 13th and 14th, 1931, making a total collection for 144 members of $1,440.00, which compares very favorably with my report of July 13, 1931 of $1,450.00. In other words we have collected within $10.00 of what we did in 1931.

Three deaths accounts for more than the difference. This is indeed a remarkable showing and so far as I can find out not another State Society in the United States can equal our record.

There is but one answer to this record and that is that the doctors believe in and support their State Medical Society and we are proud of them. Of this $1,440.00 collected, $720.00 went into the Medical Defense Fund and a like amount went into the credit of the General Fund.

From the General Fund the following amounts were expended during the year.

Postage	$ 27.00
Flowers	6.13

Express	1.12
Phones	18.48
Programs	18.50
Telegrams	36.63
Dr. Olson's Expense	12.05
President's Expense	35.56
From the Medical Defense Fund.	
F. A. Mills	$221.22
Chester Harris	10.00
Total expense	$231.22
Colorado Med Subscriptions	$353.75
Directory A. M. A.	12.00
Badges 2 years	35.80
Stenographer	200.00
Stationery	37.00
Bond of Officers	17.50
Total expense	$811.52

One of the outstanding accomplishments of the past year has been the organization of the Goshen County Medical Society. On February 17, 1932, an application for a charter for Goshen County was submitted to the Councilors and the same received favorable action and a charter was issued.

This new Society included all the licensed physicians in Goshen County. The following were elected as the Charter officers. Dr. O. C. Reed, President; Dr. J. M. Havely, Vice President; Dr. Leo Keenan, Secretary and Dr. R. K. Sell, Treasurer.

This Charter was issued March 7, 1932, and thus one more County Society was organized and added to the organized counties of Wyoming.

The Northwestern counties of Crook, Weston and Campbell ought to organize a Society patterned after the Northwest Wyoming Medical Society which has so successfully operated in the counties of Park, Big Horn and Washaki. This Society has been one of the most successful in the State Society and every effort should be made during this year to accomplish the organization of such a Society by the doctors of Sundance, Newcastle, Upton, Moorcroft and Gillette.

With the organization of this Society the entire State would be well organized. Some of us may not fully recognize the importance of these organizations but as the years go by we will all see the value of such organizations which are the basis of our State and the National Association.

The county organizations elect members to the House of Delegates, which is the real governing body of the State Medical Society, and without a county organization there is no representation on the part of those doctors who live in unorganized counties. This does not seem fair but it is the only way such representation can be given. It is therefore up to the members of the medical profession to organize with the help of the Council either individual County Societies or what we believe would be far better unite these three counties into one Society, such as the Northwestern Wyoming Medical Society.

Among the outstanding accomplishments of the past year was the creation of a Permanent Committee on Public Policy and Legislation.

Editorially such a committee was urged in the July, 1931 issue of our joint State Journal.

The necessity for such a committee was recognized and to the President, Dr. R. H. Sanders the appointment of such a committee was one of the outstanding accomplishments of his term of office. He gave the matter of its selection a great deal of thought and we truly believe it marks a new day in the life of organized medicine in Wyoming.

This committee consists of the following nine (9) members of the Wyoming State Medical Society:

Dr. E. L. Jewell, Past President, serves until July, 1932.

Dr. R. H. Sanders as President and as Past President, serves until July, 1933.

Dr. F. L. Beck, as President-elect, President and Past President, serves until July, 1934.

Dr. Earl Whedon, Secretary, serves until July, 1932.

Dr. J. C. Kamp, serves until July, 1932.

Dr. J. L. Wicks, serves until July, 1933.

Dr. W. W. Horsley, serves until 1934.

Dr. O. C. Reed, serves until July, 1935.

Dr. Oliver Chambers, serves until 1936.

Dr. E. L. Jewell was appointed President and he called a meeting of the committee which met in Casper, April 10, 1932.

Six of the nine members were present and seven other members of the Society met with this Committee as advisors.

Dr. Kamp entertained the members with a delightful dinner on the evening the night before the meeting. Sunday morning the study of the medical practice act of Wyoming, a very carefully prepared paper by Dr. William C. Woodward, Director of the Bureau of Legal Medicine and Legislation of the American Medical Association, Chicago, was read by Secretary Earl Whedon and thoroughly discussed.

This masterpiece by a lawyer of great experience and ability was thoughtfully received and the committee, after considering other matters of legislative importance, adjourned to meet again before the Rock Springs meeting.

The first part of this paper was published in the May, 1932, issue of Colorado Medicine, page 225, and should be studied by all members of this Society, especially by those who may be elected as members of the next Legislature. It is very important that we have some of our members in the next Legislature and every member of our Society should support any member who so runs irrespective of party politics.

We should make every effort to find out the opinions of all persons running for official positions such as Governor, Secretary of State, Treasurer, Auditor, Superintendent of Schools and all Senators and members of the House of Representatives. Then too we should be well represented in each branch of the Legislature.

Our outstanding Committee on Public Policy and Legislation should demand that all legislation affecting the health of the people of Wyoming be submitted to said committee for its study and recommendation and only such laws as meet with the approval of this non-partisan committee should be passed by the legislature and approved by the Governor as such committee is composed of men whose opinions are much better than those of the members of the legislature or even the Governor whoever may he be.

Every member of this Society should stand squarely back of this committee whose actions should be the court of last resort on all medical matters affecting the welfare of the citizens of Wyoming.

During the year death has taken Albert G. Hamilton of Thermopolis, and Dr. Nelson R. Wetlauger of Cheyenne.

Next year our meeting will be held in the Yellowstone Park as a joint meeting with the Idaho, Montana, Utah and Wyoming State Societies.

We hope to make this meeting even better than the first one held. Our program this year is one of the strongest ever presented to our Society, and we believe the clinics will be the finest ever held at any of our meetings. We are looking forward to the 1933 Yellowstone meeting as one of the truly great meetings in the United States and its value as a post graduate meeting will be so great that every member in our Society should plan a year ahead to attend. The program will consist of all out of state speakers, except each state presidential address. No matter where you might think of going we believe you will not be able to find such papers and addresses as will be presented at our Yellowstone Park meeting in 1933.

Most cordial have the relations grown to be between the doctors of our adjoining states and such meetings aid in a better acquaintance of the members of our different organizations.

The dreamed of day when our medical defense fund should amount to the sum of $10,000.00 limit is almost here. When this feature of our Society was presented at the Sheridan meeting of the Society in 1922 the limit of $3,000.00 was set, and objection was made at that time that we could never reach such a sum. Later the limit was raised to $10,000.00 and now we have almost reached that sum.

What has been the effect of such a provision in our Constitution? Today there is not a suit pending for malpractice that I know of in Wyoming. The remarkable record made proves the value of this part of our State Society and in the near future the $5.00 which now goes into the medical defense fund can be placed into the general fund and our Society can do more and better things for our membership. Even in these hard times let us continue our membership at the same figure and be in a position so that we can meet the requirements as they arise.

The United States Fidelity & Guaranty Company has faithfully met every provision in its contract with our Society and its members and it really costs you nothing to be a member and also receive Colorado Medicine free by the savings we make in our medical defense insurance by reason of membership in the Wyoming State Medical Society.

In closing I wish to call the attention of the Society to the splendid accomplishments of our President, Dr. R. H. Sanders and the faithful services of our Treasurer, Dr. Evald Olson, who have so faithfully served the Society and with whom it has been a real pleasure to work.

The Council has been active and they too deserve the thanks of the Society.

Your Secretary feels that the time has about arrived when he should be entitled to retire as Secretary and let some one else be elected to serve the Society. This report completes the work for fourteen years and if re-elected this year, so as to continue the work which he has done during the past years to make our 1933 joint meeting with Idaho, Montana, Utah and Wyoming in the Yellowstone Park, he must in justice to himself retire after that meeting. Fifteen years of the best part of his life devoted to the duties of the Secretary of the Wyoming State Society ought to win a retirement. During all of this time he has never received any pay for these efforts except the good will and friendship of the members. This, however, to him has been a reward in itself sufficient to repay him for his humble efforts.

The Society must select a successor and we look forward to greater and better things in the future under new leadership.

The duties of the Secretary are many and it takes all that a man can give to continue to keep this little society up to where it belongs to the high standard of the other state societies which make up the greatest medical society in the world—the American Medical Association.

And as we are planning to retire after the Yellowstone Park meeting the Society will have one year to select the most outstanding man in our society for its new secretary.

Respectfully submitted,
EARL WHEDON, Secretary.

REPORT OF THE EDITOR

To the Honorable Members of the Council of the Wyoming State Medical Society, in Convention Assembled at Rock Springs, Wyoming, July 18, 1932.

Gentlemen:

I take pleasure in reporting to your Honorable body the results of my past years work as Editor of the Wyoming part of Colorado Medicine.

During the year I have written twenty-eight editorials, published news items from twelve societies, seven scientific papers, one presidential address, one obituary, the program complete, minutes of the Rawlins meeting and in the December, 1931, a complete roster of the membership with addresses.

This year it has been harder to get news items from the county societies. Several of the addresses at the annual meeting were not in the shape of papers and, as the Society could not afford the services of an expert reporter, we were not able to publish as many scientific papers as we would liked to have done.

We have these papers which will be published in the next issues and we hope to secure from the Rock Springs meeting several that we can publish and thus carry to the men who, on account of the hard times, feel that they can not come to the meeting of the year.

We trust our efforts to uphold the highest traditions of the medical profession have met with the approval of the Council.

Respectfully submitted,
EARL WHEDON, Editor.

THE health of the people is really the foundation upon which all their happiness and all their power as a state depend. It is quite possible for a kingdom to be inhabited by an able and active population; you may have successful manufacturers and you may have a productive agriculture; the arts may flourish, architecture may cover your land with temples and palaces, you may have even material power to defend and support all these acquisitions, but if the population of the country is stationary or yearly diminishes also in stature, in strength, that country is doomed. The health of the people is, in my opinion, the first duty of a statesman.—Disraeli.

PREVENTIVE MEDICINE AND IMMUNIZATION*

J. H. GOODNOUGH, M.D.
ROCK SPRINGS

Human beings contract infectious diseases directly or indirectly from other human beings. From a health officer's point of view, therefore, every individual in a community presents a potential source of infection to others. Were we confronted only by the necessity of guarding against infection originating in recognized cases, the problem would resolve itself simply into one of prompt diagnosis and isolation. As it is, however, transmission by clinically recognizable cases is growing less important as methods of diagnosis and public health supervision grow in efficiency, and in an increasing proportion of instances the ultimate origin of such disease must be sought in the mild unrecognized case and the carrier.

It is these two sources of origin which particularly render difficult the task of health authorities. We have seen cases of simple diarrhea unrecognizable, except by laboratory methods, as sources of dysentery baccilli. Diphtheria bacilli have many times been isolated from the throat showing nothing more than slight catarrhal inflammation, a condition made possible by antitoxic immunity of the individual, relatively high, but not quite adequate to completely prevent infection. That mild non-paralytic cases of poliomyelitis are probably quite common during epidemics has been emphasized by Flexner, and it is highly probable that both measles and scarlatina may, on rare occasions, occur without the typical rash. It is not at all improbable that it will be necessary in the future to pay particular attention to the study of atypical manifestations of the more common contagious diseases, an extremely difficult matter in most cases, since the sanitary importance of this type of case is of course obvious.

Under such circumstances public health organizations cannot fulfill their functions merely by being ready to suppress outbreaks of disease as soon as the first cases are recognized. Protection is possible only by so organizing community life that the routine contact of individuals with infectious materials may be reduced to the smallest extent, and by so influencing the habits, nutrition, occupation, etc., of the community that the average resistance of the population may be maintained at the highest level, adding universal specific prophylaxis to this whereever feasible.

Such a program involves, in addition to the more technical sanitary organization, educational and administrative activities. Indeed, without such cooperation, sanitary measures alone will be able to accomplish very little. Poverty carries in its train involuntarily sustained uncleanliness, crowding, and undernutrition. Inadequate regulation of the conditions under which men and women work and amuse themselves will lead to reduced group resistance and will open innumerable additional avenues of transmission. Lack of education in the simple hygiene of every day life leads, above all else, to carelessness of the rights of others in regard to infection. Honorable citizens, who would hesitate to try a new rifle on the main streets of any of our cities, have no compunction about coughing or sneezing in each other's faces, sending their children to school with whooping cough or heavy colds, or entering vigorous protests again vaccination and immunization. Indeed, with a well developed school system, there is little excuse for undeniable prevalence of ignorance about the simplest rules of infection. Public education is, perhaps, one of the most important single factors in the successful prevention of communicable diseases.

Dr. M. J. Rosenau of Harvard University said, "Immunity or resistance to disease is the very foundation of preventive medicine." The word "immunity" is a very old term, but it is only of late years that we are beginning to understand the mechanism by which the body protects itself against infection. The advance has been so rapid that

* Read May 5, 1932, before the Wyoming White House Conference on Child Health and Protection.

these studies may now be grouped into a separate science known as "immunology." Immunity is a function of all living beings, and in its widest form is one of the fundamental properties of life. Immunity may be defined as the power which certain living organisms possess of resisting infection. Immunity is the contrary condition to susceptibility. The word "resistance" has practically the same significance as immunity.

There are all gradations and various kinds of immunity. It varies in degree from the weakest appreciable amount to an absolute protection. It varies also greatly in duration, from the briefest period to a life span. Immunity, therefore, is a relative term. It may be natural or acquired, active or passive, local or general, pure or mixed, familial or racial, brief or lasting, strong or weak.

It is now quite evident that the mechanism of immunity varies in different infections, and to a certain extent, even in the same infection under different conditions. It must further be admitted that we are still in ignorance of the mechanism by which the body protects itself against many diseases.

The unsatisfactory state of our knowledge in certain fields of immunity is well illustrated in the case of anthrax. The mechanism of protection is not at all understood in this infection, which is the first and classic illustration of a germ disease. The mechanism of immunity in common colds is also complex and obscure.

Time will not permit the discussion at this time of natural immunity, so let us go at once to the consideration of acquired immunity. By acquired immunity is meant a specific resistance to an infection that is not naturally inherent in all the individuals of a species, but as the term indicates, the immunity is acquired during the life of the individual. Immunity may be acquired either through some natural event, such as an attack of a disease, or may be artificially induced by the introduction of some substance such as a serum, toxin, vaccine, or virus.

Preventive inoculations with bacterial vaccines, sera, and toxins are now practiced in cases of typhoid fever, plague, tick fever, diphtheria, and scarlet fever, and are destined to be extended to other infections.

Lack of progress in health conservation and preventive medicine, not infrequently is due to the unfortunate tendency of the medical profession to neglect well established and proved methods of specific prophylactic procedures. If these procedures were put into effect, healthy minds and wholesome bodies would be the characteristics of the rising generation. It is my hope that the child health day proclamation will properly be a reminder of the fundamental necessities of a collective effort for the protection and development of the health of the state's children.

INFANT AND MATERNAL MORTALITY*

A. B. TONKIN, M.D.
RIVERTON

To be allotted the very brief time of fifteen minutes to discuss infant and maternal mortality is to touch only the very high spots, as any statement regarding causes and effect, other than the actual statistics shown by figures, is only controversial and apt to be misleading. I am, therefore, approaching this subject with a great deal of trepidation.

Infant Mortality

Considering infant mortality, causes of which are mostly an index of social welfare, it has been said "If every baby was well-born and well cared for the mortality would be negligible". A high infant mortality results in the sacrifice of both the unfortunate and the unfit. Infant mortality refers to deaths under one year of age. The rate is the ratio of deaths under one year of age to the total live births during the same period. The underlying factor in infant mortality is infancy itself. Most infants die from accidental, and therefore preventable causes. The fundamental causes are the

*Read May 5, 1932, before the Child Welfare Conference, Casper.

results of poverty, ignorance, and neglect. The chief specific causes that increase infant mortality are artificial feeding,—improper, ignorant supplementary breast feeding, hot weather, unclean milk, and bad feeding habits. Contributing factors are lack of prenatal care, maternal occupation necessities, imperfect hygiene and sanitation, inherited diseases, and congenital deficiencies.

The causes are therefore multiple and complex and include social and economic factors. It is practically impossible to cover the various specific causes in the time allotted. I will only bring out those that in my experience have been the two greatest causes—diseases of the gastro-intestinal tract and acute respiratory diseases. Of course, the cases of prematurity and congenital weakness generally succumb within the first forty-eight hours and are rarely preventable. This leaves the first two great cause classifications above as the most frequently dealt with.

Gastro-intestinal diseases comprise the largest single factor; in fact, the curve of diarrheal diseases largely controls the curve of infant mortality. There are three underlying causes of gastro-intestinal diseases the first year: atmospheric heat, methods of feeding and infection. The effects of heat especially combined with humidity are well known. Statistics dealing with the methods of feeding and its relation to infant mortality speak too well in favor of the breast fed baby as against the bottle fed. Proper supervised intelligent breast feeding is one measure alone that would reduce the infant mortality. Breast feeding requires little experience and may be very successfully done even by those of low intelligence and among the very poor, but artificial feeding, to be successful, must be carried on with intelligence, experience, and a certain amount of money to secure reliable materials, especially safe milk. Many of the diarrheal diseases of infants are true bacillary dysenteries or infectious diarrheas of specific cause; they are transmitted in the same ways as typhoid fever or dysentery. Sanitary isolation, the boiling of diapers, and antiseptic technic in the handling of food and clothing are essential to protect babies against these infections.

I might say with regard to breast feeding, the greatest trouble is that it is not always done judiciously. Many cases of breast feeding go wrong because of failure of the mother to confine herself to breast feeding, starting improper supplementary foods too early and without reason. Too many parents are too anxious to cease breast feeding too soon and to supplement the breast by some product that has been recommended by a well-meaning but misguided neighbor or ancestor.

Acute respiratory diseases are responsible for about eighteen per cent of the total infant mortality. Overcrowded public gatherings favor the spread of these infections. Common colds and influenza are apt to cause severe bronchitis or pneumonia in infants.

The death reports cover only the final disease entity. Preceding this there is generally a list of contributing causes leading up to the terminal condition. Such conditions as malnutrition, neglect, marasmus, experimentation, and ignorance may have existed for weeks or months before the final days of illness which closed the picture.

The prevention and reduction of infant mortality lie in attacking the problem at its roots, in concentrating upon the preventable causes, and directing attention to the education and training of the mother. Preventable causes of infant mortality are generally grouped as follows:

1. Those which are little influenced by education or treatment: Malformations, prematurity, birth accidents.

2. Those more capable of reduction through sanitation, hygiene, and medical treatment. Such entities include tuberculosis, syphilis, acute respiratory diseases, and acute contagious diseases.

3. Those capable of a very great reduction through proper feeding, food preparation, and care. Acute gastro-intestinal diseases, marasmus, and inanition, are in this category.

Poverty and ignorance require social justice and educational remedies. Other means

of prevention are prenatal clinics, educational clinics, proper safeguarding of milk, public health campaigns, encouragement of supervised breast feeding, intelligent artificial feeding under supervised medical advice, isolation from infectious disease, sunshine, fresh air, and other hygienic measures. Considerations of the causes of infant mortality inevitably lead to the question of the care the mothers receive before, during, and after the birth. It has been demonstrated in many localities that prenatal care and maternal clinics show the greatest route for the reduction of infant mortality.

Maternal Mortality

For countless ages men have been pinning medals on themselves for bravery, yet little credit or honor is given the woman who has risked her life for every man that has been born. Such a statement I am sure will receive little contradiction. The process of reproduction is disturbed by many pathogenic influences in all the periods of its cycle, and many permanent structural changes are inaugurated at this time. It is generally accepted that labor in women is a normal function. It should be, but it is not. Too often a careless husband takes this for granted; so also may the expectant mother herself, misguided neighbors who offer their advice, and unfortunately the physician. With only about four-fifths of our country in the national registration area and the returns from the registered area often inaccurate or incomplete, we know that about 16,000 women die annually in childbirth. We can form no conception of the late or postponed mortality from injuries received during labor and from diseases acquired during pregnancy and the puerpuerium; nor can one tell how many women die from childbirth but who are buried under some other diagnosis. A perfectly safe estimate is that 25,000 women die every year in the United States from the direct and indirect effects of pregnancy and labor.

The immense amount of invalidism resulting is immeasurable. Probably fifty per cent of the women who have had children bear marks of injury and may sooner or later suffer from them. Can a function be called normal that is so perilous that it kills thousands of women every year, leaves a quarter of the women more or less invalided and a majority with permanent anatomical changes of structure, is always attended by severe pain and frequently by tearing of tissues, and kills three to five per cent of the infants? Many insects die upon completing reproduction; should it be considered normal for the human being to have the same end? Certainly no one will take such a position. All authors hold that the reproductive function in the human being should normally have no mortality and should not injure the woman or the child. If this be true, why is it not prevented? Pregnancy has been aptly called a period of nine months of sickness. If this understanding could be conveyed to the expectant mother and her family, much could be done, but contrarily the laity has been taught through ages that reproduction and labor are normal physiologic processes that require no special preparation or forethought.

Many complications are not prevented because the standards of obstetrical instruction and particularly of obstetrical practice are low. Few graduates, especially without hospital service, have ample experience; they gain their practical knowledge in the first cases accepted and in the early days of their practice. They are not prevented because so many doctors do not like obstetrical practice, claiming it is tedious, tiring, and poorly remunerative. Expectant mothers should avoid members of the general profession who profess this attitude and avoid them as the plague. No physician can aid in the reduction of maternal mortality unless he approaches the case with the same respect he would a major surgical operation.

Prenatal work must be carried on continuously from the first knowledge of pregnancy. It is unfair to any physician to be called on a case of confinement at the last moment, or even during the last trimester. The physician should carry on during the parturient period a proper educational program with proper periodical examinations.

Obstetrics must be placed on a higher plane. The lawmakers should protect a

child-bearing woman with proper legislation, prenatal care must come into its own and the public must properly evaluate the obstetricians' services and adequately remunerate him for his care.

Having this subject very much at heart, I feel it incumbent upon me to say something that may stem the tide of operative interference so prevalent, with its resultant maternal and fetal mortality. True, labor is a painful and, in many instances, a long process, and it would be well to relieve and hasten the procedure, but, so far as is consistent, the policy of non-interference with the process of nature, with a careful supervision, will give the best results. Indications for operative interference to hasten and terminate labor by caesarian section, forceps, version, pituitin, bag dilators, must be considered if maternal mortality is to be reduced. In Wyoming, it is the general practitioner who conducts the largest number of births, and the greatest number of them are handled in the home or in the poorly equipped small hospital. There are few towns of sufficient size in Wyoming to justify the expert obstetrician or the maintaining of hospitals specially equipped and devoted to this specialty. Unnecessary and too early operative interference is one of the greatest causes of maternal mortality.

Infant and Maternal Mortality Statistics for the Rocky Mountain States

Only three of the Rocky Mountain states have been in the registration area for a period of ten years. These are Montana, Wyoming, and Utah. During that time, statistics show that Montana and Utah have had a consistent decrease in both mortalities, and both are considerably lower than Wyoming over the ten year period. This speaks poorly for Wyoming; wherein is the reason? If time permitted, much might be said in justification for Wyoming. These two other states have established state health organizations supported by interested legislatures. Arizona and Idaho have been in the registration area for a five year period, and Idaho is consistently lower in both mortalities than Wyoming. Arizona has higher mortalities, probably due to a large Indian population; being a health center, and with also a large Mexican population. Colorado shows a maternal mortality equal to Wyoming and an infant mortality even greater. In the past two years, Nevada and New Mexico have been entrants into the registration area, and here we find two Rocky Mountain states with mortalities equalling or surpassing those of Wyoming. Nevada presents slightly higher maternal and same infant mortality. New Mexico has a well established state health organization; with her Mexican and Indian population, she needs it. Considering this, New Mexico has a remarkably low rate.

Figures over a ten year period for all these states are as follows:

AVERAGE PER YEAR DEATHS PER 1,000 LIVE BIRTHS

	Mortality Infant	Mortality Maternal
Wyoming (1922-1931)	69.8	8.3
Montana (1922-1931)	60.3	7.4
Utah (1922-1931)	54.2	5.2
Arizona (Five year period)	126.0	8.3
Idaho (Five year period	57.0	6.2
Colorado (Two year period)	91.0	8.3
Nevada (Two year period)	67.0	8.4
New Mexico (One year period	145.0	8.8

The figures indicate that Wyoming has need to improve to equal her nearby states, Montana, Idaho, and Utah. Three hundred eighty-eight mothers have died from maternal causes in the ten year period, and 3,320 infants have died under the age of one year. It is to be hoped that the years that are to come will develop the needed co-operation between legislator, Board of Health, social worker, and laity to place the record of Wyoming on a par with the most favorable of the states in the Rocky Mountain region.

In summing up the report from the Welfare and Relief Mobilization of 1932, Newton D. Baker says, "Children have seen the security which their parents have spent years in building, wiped out, and have agonized with their elders over the ways of keeping the 'wolf from the door.' No child in the United States should be called upon to suffer in any of these ways. Public and private health services should be run at full efficiency during this crisis in order to guard the health of our boys and girls."

WYOMING STATE MEDICAL SOCIETY

1932 Membership

Name	Address	Society
Barber, Raymond	Rawlins	Carbon
Barrett Lawrence	Casper	Natrona
Beach, G. O.	Casper	Natrona
Beard, C. Y.	Cheyenne	Laramie
Beck, F. L.	Cheyenne	Laramie
Boesel, R. J.	Cheyenne	Laramie
Bunten, W. Andrew	Cheyenne	Laramie
Carr, J. E.	Sheridan	Sheridan
Carter, C. Danna	Thermopolis	Hot Springs
Chambers, O. C.	Rock Springs	Carbon
Clark, P. J.	Powell	Northwestern
Clegg, E. G.	Monarch	Sheridan
Conway, J. H.	Cheyenne	Laramie
Crandall, Myron L.	Rawlins	Carbon
Crane, R. E.	Sheridan	Sheridan
Dacken, V. R.	Cody	Natrona
Dale, E. E.	Edgerton	Natrona
Davis, Augustus	Superior	Sweetwater
Day, W. R.	Cheyenne	Laramie
*Dean, T. A.	Casper	Natrona
DeKay, E. W.	Laramie	Albany
Denison, E. G.	Sheridan	Sheridan
Einhorn, N. H.	Midwest	Natrona
Finch, Harold	Laramie	Albany
Fish, C. E.	Wheatland	State
Fosner, L. E.	Evanston	Uinta
Fox, G. A.	Cheyenne	Laramie
Fuhrer, J. E.	Reliance	Sweetwater
Geis, N. C.	Casper	Natrona
Goff, H. H.	Cheyenne	Laramie
Goodnough, J. H.	Rock Springs	Sweetwater
Gorder, J. W.	Greybull	Northwestern
Graham, J. W.	Sunrise	State
Gray, W. O.	Worland	Northwestern
Guthrie, J. B.	Cheyenne	Laramie
*Hale, Robert W.	Thermopolis	Hot Springs
Hamilton, A. B.	Laramie	Albany
Hanna, T. J.	Lusk	State
Hansen, H. P.	Burns	Laramie
Harris, H. T.	Basin	Northwestern
Harris, C. E.	Basin	Northwestern
Harvey, H. L.	Casper	Natrona
Hassed, W. H.	Cheyenne	Laramie
Holland, J. H.	Evanston	Uinta
Horsley, W. W.	Lovell	Northwestern
Horton, F., Sr.	Newcastle	State
Horton, W. O.	Newcastle	State
Holtz, Paul R.	Lander	Fremont
*Howe, W. E.	Cody	Northwestern
Huffman, F. G.	Wheatland	State
Hunt, C. E.	Laramie	Albany
Hylton, J. R.	Douglas	State
Hynds, John	Buffalo	Natrona
Jeffrey, C. W.	Rawlins	Carbon
Jewell, E. L.	Shoshoni	Fremont
Johnson, S. W.	Sheridan	Sheridan
Johnson, L. D.	Casper	Natrona
Johnston, G. P.	Cheyenne	Laramie
Kamp, J. C.	Casper	Natrona
Kanable, Russell H.	Basin	Northwestern
Keith, M. C.	Casper	Natrona
Kinney, O. B. C.	Cody	Northwestern
Knebel, W. J.	Buffalo	Sheridan
Krueger, K. E.	Winton	Sweetwater
Lacey, W. M.	Cheyenne	Laramie
Lane, F. M.	Cody	Northwestern
Lathrop, H. R.	Casper	Natrona
Lauzer, E. S.	Rock Springs	Sweetwater
Leake, R. M.	Laramie	Albany
Lenz, D. S.	Midwest	Natrona
Lewellen, J. D.	Cody	Northwestern
Lucic, H. L.	Cheyenne	Laramie
Magrath, M. E.	Cheyenne	Laramie
Markley, J. P.	Laramie	Albany
Meredith, L. C.	Sheridan	Sheridan
Metz, Peter F.	Thermopolis	Hot Springs
Mills, F. A.	Powell	Northwestern
*Mitchell, Albert R.	Lincoln	Nebraska
Mokler, V. A.	Thermopolis	Hot Springs
Morad, N. E.	Casper	Natrona
Morris, M. L.	Pine Bluffs	Laramie
Myre, S. L.	Greybull	Northwestern
Mylar, W. K.	Cheyenne	Laramie
McDermott, W. O.	Casper	Natrona
McHenry, J. C.	Gillette	Natrona
McLellan, A.	Casper	Natrona
Nagle, J. B.	Worland	Northwestern
Nelson, N. C.	Cheyenne	Laramie
Newman, J. R.	Kemmerer	State
Nolan, M. J.	Casper	Natrona
Noyes, E. F.	Dixon	Carbon
Olson, Evald	Meeteetse	Northwestern
Pavy, O. S.	Laramie	Albany
Phelps, Geo. H.	Cheyenne	Laramie
Phifer, F. W.	Wheatland	State
Pierce, J. R.	Thermopolis	Northwestern
Pugh, Chas. E.	Laramie	Albany
Rae, H. B.	Wheatland	State
Reed, O. C.	Torrington	State
Reed, Paul S.	Worland	Northwestern
Reeve, Roscoe	Casper	Natrona
Replogle, J. F.	Lander	Fremont
Rivet, J.	Casper	Natrona
Roberts, W. H.	Sheridan	Sheridan
*Roder, Claude A.	Omaha	Nebraska
Roe, F. H.	Rock Springs	Sweetwater
Sanders, R. H.	Rock Springs	Sweetwater
Savory, G. B.	Cheyenne	Laramie
Sayles, D. M.	Gillette	Sheridan
Scheidegger, E. F.	Green River	Sweetwater
†Schunck, E. R.	Sheridan	Sheridan
Schunk, Wm.	Sheridan	Sheridan
Scott, Douglas	Cheyenne	Laramie
Sederlin, E. L.	Laramie	Albany
Seibel, R. A.	Casper	Natrona
Sell, R. K.	Torrington	State
Shaffer, F. C.	Douglas	State
Shingle, J. D.	Cheyenne	Laramie
Smith, Clifford L.	Buffalo	Natrona
Smith, F. C.	Casper	Natrona
Smith, W. Francis	Lander	Fremont
Steffen, W. A.	Sheridan	Sheridan
Stevenson, C. E.	Sheridan	Sheridan
Stewart, J. G.	Sheridan	Sheridan
Strader, G. L.	Cheyenne	Laramie
Stukenhoff, H.	Casper	Natrona
Tabor, Leonard	Glenrock	Natrona
Taggart, A. T.	Lodge Grass, Mont.	Sheridan
Taylor, G. W.	Cross Creek	Hot Springs
Tonkin, A. B.	Riverton	Fremont
Trueblood, R. C.	Cody	Northwestern
Tucker, Arthur	Seattle	State
Veach, O. L.	Sheridan	Sheridan
Wanner, J. G.	Rock Springs	Sweetwater
Whalen, J. F.	Green River	Sweetwater
Whedon, Earl	Sheridan	Sheridan
Whitlock, J. R. A.	Powell	Northwestern
Wicks, J. L.	Evanston	Uinta
Wills, C. L.	Parco	Carbon
Wilmoth, L. H.	Lander	Fremont
Wilson, J. D.	Rawlins	Carbon
Woodward, Stillman	McFadden	Carbon
†*Wyman, W. A.	Cheyenne	Laramie
†Yates, W. W.	Casper	Natrona

*Honorary Member.

†Deceased during the year.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. V December, 1932 No. 12

PULMONARY tuberculosis rightfully claims major attention at a sanatorium since it constitutes 90 per cent of the cases of the disease in human beings. All organs of the body are susceptible, however, and among them the bones and joints. While it is customary to treat such cases at orthopedic hospitals, every sanatorium has their care as at least a minor problem. Dr. Hyde recounts his experience at Springfield Lake Sanatorium where in addition to a large population of pulmonary cases he has had wide experience with the management of cases of bone tuberculosis as well.

TUBERCULOSIS OF THE BONES AND JOINTS IN CHILDREN



Supervised heliotherapy
in extra-pulmonary tuberculosis

Occurrence

The belief that the occurrence of bone and joint tuberculosis has dropped to a negligible point is untrue, therefore misleading and dangerous. At Springfield Lake during the past ten years 4 per cent of adult patients and 5 per cent of the 1,220 children admitted showed tuberculosis of bone and joints. The increase in tuberculin testing of cattle together with higher standards of living have not sufficed to eliminate the disease.

The death rate has dropped, to be sure, concomitantly with that from pulmonary tuberculosis. This is attributable, in large part perhaps, to earlier diagnosis and better treatment. City clinics, however, continue to carry the same or even a greater number of cases than formerly. These show the disease predominantly prevalent in children, 87 per cent in 5,461 cases at the Hospital for Ruptured and Crippled in New York.

Etiology

The disease is metastatic, is frequently blood borne and is often associated with other manifest tuberculous lesions in various parts of the body. Dr. Hyde found an average of 2.6 such lesions per patient. The treatment of these cases should, therefore, be recognized as a medical as well as an orthopedic problem.

Localization of the disease in bone is favored by injury and by disturbances in nutrition. The injury itself in many cases may be slight, but 27 per cent of the cases gave a history of recent trauma, and in a number bacterial proof of disease was made within four or five weeks of such history. The vascular metaphysial zone of the growing bone of children is a frequent site of this localization. In the group of cases discussed about half were children under treatment for tuberculous lymph nodes and the other half adults under treatment for pleurisy or pulmonary tuberculosis. Pott's disease is the commonest form of the infection in children under six, with the hip and knee showing greater frequency in older childhood, while tuberculosis of the upper extremety occurs more often in adults.

Diagnosis

A successful outcome depends as in pulmonary tuberculosis on early diagnosis. This is difficult. The tuberculin test is of value only when negative. The X-ray does not reveal early lesions especially

in the partially calcified bones of young children. The subcutaneous tuberculin test to stir up local reaction is dangerous and not to be approved. Biopsy is advocated by Hibbs and others, but this procedure may be misleading since it requires the highest diagnostic judgment and should only be used when surgeons and pathologists of long training and experience can cooperate in its performance.

Diagnosis must, therefore, depend largely on a history of previous contact or evidence of existing infection elsewhere in the body together with careful physical examination. Fluctuating swellings should not be opened though they may be aspirated with a fine needle for diagnostic purposes. In speaking of tuberculous abscess Calot says, "In closed tuberculosis cure is certain. To open it or allow it to open is to open a door by which death too often will enter." By means of smears, implantation on various media and guinea pig inoculation, tubercle bacilli were found in aspirated material from 27 per cent of the present series.

Treatment

Duration of treatment averaged 5.2 years. This fact emphasizes the essential importance of combined medical and orthopedic care for cases of bone and joint tuberculosis.

Conservative treatment by means of rest, diet, fresh air and sunshine is the method of choice for children. Surgery may be needed even in the younger cases but is a more important ally in handling the disease in older children and adults.

Immobilizing the affected joint in the position of election is the first and most important step. In advance cases with contracture deformities splinting may be done without immediate correction, relying on later surgical treatment when the disease has reached a period of quiescence.

Heliotherapy is recognized as a treatment of greatest value. Orthopedic appliances should be arranged so as to permit sun treatment when possible. Adequate doses of unfiltered sunlight furnish the ideal method of light therapy and have demonstrated their superiority over artificial substitutes. Only when sunlight is not available should the latter be employed. The effect of solar light is especially marked on tuberculous abscesses, exudates, sinuses and fistulae. Its judicious use in such cases often yields gratifying results; unwisely applied it may aggravate existing conditions. Especially in hot weather the penetrating red rays of the sun may be a source of danger. Rollier encourages his discharged convalescents to continue a life of heliotherapy.

When treatment is instituted early the disease may be arrested with, at times, complete restoration of joint function. In more advanced cases with extensive destruction of tissue rest will give subsidence of symptoms but with deformity or limited motion. In the latter case recrudescence is common. In both instances resort to surgical interference is frequently indicated.

Surgical Treatment

Forcible correction of deformities should never be attempted. Gradual reduction under splinting and traction is at times successful. Operation should be undertaken only after all acute symptoms have subsided and when the X-ray indicates that the disease is inactive. Surgery does not cure tuberculosis of joints. Its dual role is in the correction of deformities and in the immobilization of joints by creating ankylosis in the position of election. When possible it should be deferred until the second decade of life or until bony development is nearly complete to avoid interruption of growth so far as possible.

If after healing some motion remains in a weight-bearing joint, ankylosis is often desirable to avoid the danger of recrudescence of the disease. Especially is this true in the spinal cases, and ready recourse to the Hibbs or bone graft method of operation is desirable. Stabilizing operations on the hip joint are also frequently indicated, and the knee and ankle require similar treatment, perhaps with somewhat less regularity. Complete immobilization must be secured even though a second operation is required to accomplish this result. While Rollier advocates great operative conservatism and prefers to advise sheltered employment, it is generally felt that an ankylosed joint gives better assurance against relapse and is economically wiser in that it allows a safer return to ordinary conditions of life and employment.

Convalescent Care

Convalescence is prolonged, often extending over a number of years. For this reason it is well to stress once more the importance of combined medical and orthopedic care. Supervision of splints, massage, exercise and gradual weight bearing require expert orthopedic guidance.

Medical care includes the prolonged and intensive use of rest, diet, fresh air and light therapy indicated in all cases of tuberculosis, whatever organ of the body may be involved.

Tuberculosis of the Bones and Joints in Children, Clarence L. Hyde, Am. Rev. of Tuberc., November 1932.

The Medical Profession Is Urged to Investigate

the coverage of our Professional Liability contracts, the Organization and Service behind them and our reasonable Premium Rates before choosing other insurance which may lack one or more of these essentials.

Ask Our Local Agent or Write to Our Branch Office

Over $50,000,000 in Resources — We Insure Only Ethical Practitioners

David Jacobs, Manager — *C. B. Tylor, Assistant Manager*

316 Cooper Bldg. — Denver, Colorado

UNITED STATES FIDELITY & GUARANTY CO.

BALTIMORE, MARYLAND

TAbor 1830 — 1534 COURT PL.

STURGEON ELECTRIC CO.

D. D. (DAVE) STURGEON

PROMPT ATTENTION TO YOUR ELECTRICAL NEEDS

REPAIRING — APPLIANCES — PLATING

W.T. ROCHE

Ambulance Service Co.

The organization which gave Denver and vicinity its first real ambulance service.

For eleven years we have maintained service and confidence of our patrons.

We will continue to do our utmost to earn your approval and patronage.

YOrk 0900 — YOrk 0901

18th at Gilpin

SANITARY SPECIALTIES COMPANY

2819-21 Larimer St. — *Manufacturers and Jobbers* — *DENVER, COLORADO*

OBSTETRIC NAPKINS
CRESOLIS COMPOSITUS
DEODORANTS
FLOOR WAXES



NEUTRAL CLEANING SOAPS
INFANT'S LIQUID SOAP
LIQUID TOILET SOAPS
GREEN SOAP U. S. P.

HOSPITAL SOAP EQUIPMENT

"Everything for the Sanitation and Maintenance of Hospitals and Institutions"

Colorado Hospital Association

OFFICERS

FRANK J. WALTER, President, Saint Luke's Hospital, Denver
GUY M. HANNER, President-Elect, Beth-El Hospital, Colorado Springs
JOHN ANDREW, M.D., First Vice President, Longmont Hospital, Longmont
SISTER SEBASTIAN, Second Vice President, Mercy Hospital, Denver, Colorado
WALTER G. CHRISTIE, Treasurer, Presbyterian Hospital, Denver
WILLIAM S. McNARY, Exec. Sec. Univ. of Colo. School of Med. and Hosps., Denver

TRUSTEES

J. E. SWANGER, Modern Woodmen of America Sanatorium, Woodmen, Colorado
GUY M. HANNER, Beth-El Hospital, Colorado Springs, Colo.
G. WALTER HOLDEN, M.D., Denver, Colorado
MAURICE H. REES, M.D., Univ. of Colo. School of Medicine and Hospitals, Denver, Colorado.
ROBERT B. WITHAM, Children's Hospital, Denver, Colorado

Hospitalization Through Periodic Payment

THERE has recently been a great deal said about sickness insurance, or, more correctly speaking, hospital insurance. The plan very briefly is as follows: An individual pays to the hospital a certain stipulated sum per month for a period of a year, and if during that year he should become ill the hospital will, in consideration of such payments, render him care for a stated period.

There is much to be said for and against this plan, both from the hospitals' point of view and the medical standpoint. The editor invites statements regarding the project, pro and con, from hospital executives and from the medical profession.

SPECIALTIES IN THE BASIC COURSE*

FRIEDA OFF, R.N.

I have been asked to discuss briefly the place of so-called specialties, x-ray, laboratory, and drug room, in the basic course of the nurses' training. Since it is quite the thing in these days of radio advertising to have a theme song I should like to take as my theme song, for this discussion, one entitled, "What are We Educating Nurses For?" In other words, what is it we expect a nurse to be able to do and do well when she has completed her three years of training?

I believe we are agreed on one thing that we are all concerned with—the expert *nursing care* of the patient. We see the patient as the center of activity around which all nursing revolves. We see the student as a prospective nurse going out into the nursing field to actually care for patients. We see her as a private duty nurse called for one of the many types of cases.

She may be called into a home or into a hospital; at any rate we expect her to be able to adjust herself to the environment and give expert nursing care to the patient. Again she may be employed as a general duty nurse in a hospital. It may be a hospital where services are non-segregated and she may have the care of any one or all of many types of cases. She may take a position as a staff nurse with a public health organization and be sent out into the district where she will care for many types of cases.

It is the general consensus of opinion of qualified nursing educators that a nurse's basic training should fit her for three fields, namely, general duty nursing in a hospital, private duty in the hospital or home, and staff nurse of a public health organization.

The content of a nurse's education must be based upon the actual duties and responsibilities which the average nurse is expected to carry at the present time in the practice of her profession. Nurses are expected to care for the widest variety of human beings in all conditions of health and disease. These may be summarized as follows:

A. Classified according to age, sex, intelligence and social status.

1. All ages—infancy to adult life.
2. Men, women, boys, girls.
3. All races, classes, social statuses, and economic conditions.
4. All grades of intelligence, including many abnormal types.

B. Classified according to stage or degree of illness.

1. Normal (especially the normal child, including premature baby).
2. The mildly ill, chronic, and convalescent.
3. Actually ill, operative cases, accident cases.

C. Classified according to the type of disease.

1. Medical diseases—all types including communicable diseases, tuberculosis, venereal and skin diseases.
2. Surgical diseases—all types including gyne-

*From the Denver General Hospital.

Irradiated Milk *Prevents* and *Cures* Rickets!

"A clinical test of this product in the prevention and cure of infantile rickets demonstrated that it is a highly effective antirachitic agent which can be relied on. Less than one quart daily sufficed to protect even Negro infants." (Hess, A. F., and Lewis, J. M. Jour. A. M. A., August 20, 1932)

"It may be added that dry milk, milk dried by the roller process, was found last year to be very effective in protecting against or curing rickets and that this product maintains its potency for a period of many months." (Ibid.)

DRYCO is the Only Irradiated Dry Milk

The same Dryco which has been successfully prescribed over a period of 16 years *Plus an Increased Vitamin D Factor.*

PRESCRIBE

DRYCO

Made from superior quality milk from which part of the butterfat has been removed, irradiated by the ultraviolet ray, under license by the Wisconsin Alumni Research Foundation (U. S. Patent No. 1,680,818), and then dried by the "Just" Roller Process.

THE DRY MILK CO., INC.,
Dept. C, 205 East 42nd St., New York, N. Y.

All Dryco in the Hands of Druggists is Irradiated

COUPON

Dry Milk Company, Inc.,
Dept. C, 205 East 42nd St.,
New York, N. Y.

Please send special literature: Dryco—The Irradiated Milk; Irradiated Milk in the Treatment of Rickets; Milk Irradiated by the Carbon Arc Lamp (Abstract); Irradiated Milk—The New Rickets Prevention Therapy.

NEALO
BREAKFAST FOOD



AN APPETIZING PRODUCT
MADE FROM HIGH GRADE WHEAT
CONTAINS ALL THE BRAN
NET WEIGHT 2 POUNDS
MANUFACTURED BY
KROONENBERG MILLING CO.
DENVER, COLO.

DOCTORS RECOMMEND BRAN for ROUGHAGE

Especially when combined with the entire wheat kernel and properly prepared for the ideal breakfast food.

NEALO

is a revelation in the appetizing and taste alluring possibilities of Colorado wheat.

KROONENBERG MILLING CO.

Denver Colorado

Meeker Home

* * *

A Home and School for Sub-Normal Children

* * *

Study rooms, playgrounds, fruit and vegetable garden, dairy and home influences.

Rates very reasonable.

LYDIA G. MEEKER, Director
5187 Lowell Blvd. GAllup 4849
Denver



INVALIDS ELDERLY PEOPLE

Desirable Environment

REAL HOME CARE

GRAY and PALMER

147 W. Irvington SPruce 5758

cological, urological, and ordinary orthopedic cases.

3. Diseases of infants and children.
4. Obstetrical.
5. Mental and nervous.
6. Diseases of eye, ear, nose and throat.

Nurses should be prepared to work in all kinds of places and under practically all kinds of conditions: Hospitals, hotels, homes, tenements, factories, schools, camps, in city or rural districts, in all sections of their own country and sometimes other countries, under normal or emergency conditions, such as war, epidemics, and day or night.

This sounds like a very full program for a three year course. How can we give this preparation? It is commonly accepted in schools of nursing that a good teaching field must provide satisfactory opportunities for training in the four main branches of nursing: medical, surgical, obstetrical, and pediatrics. More and more we are being made aware that nursing of mental cases should be included.

Of what should these services consist? How much time should a nurse spend in each department? Nursing educators who have spent much time and thought on the content of nursing education have estimated the amount of time the student should spend in each department and the curriculum for schools of nursing gives the general scheme of practical instruction and experience as follows:

Preliminary	4 mo.
Medical (includes geenral medical, wards, diet, kitchen, etc.)	5 mo.
Surgical (includes general surgical, gynecological, urological, orthopedic ward, and operating room)	6 mo.
Communicable Diseases (includes work in special divisions for contagious diseases, tuberculosis, venereal diseases)	3 mo.
Pediatrics	3 mo.
Obstetrics	3 mo.
Psychiatry	3 mo.
Eye, Ear, and Nose	1 mo.
O. P. D.	2 mo.
V. N. A.	3 mo.
Vacation	3 mo.

After all this preliminary discourse I come to the point of discussion: What is the place of specialties in this program? How will time spent in these specialties improve the knowledge of the nurse so she will be able to give better nursing care? I personally have always maintained that if these ser-

"BUT DOCTOR! CAN'T I EAT ANY . . . ?"

When the patient begins to despair, you can anticipate trouble in keeping him to the prescribed diet. Have you ever considered how much the recommendation of Knox Sparkling Gelatine can help? Knox permits the patient to enjoy a wide variety of dishes based on a restricted number of foods. It combines with all foods. It is especially valuable for diabetic, reducing, and anemia diets and for liquid and soft feeding.

●

85–86% protein, Knox Sparkling Gelatine is free from sugar, artificial coloring or flavoring. Thus Knox should be specified to avoid the thoughtless use by the patient of ready-mixed gelatin preparations which contain 70% or more sugar and acid flavoring. On request, the Knox Gelatine Laboratories, 418 Knox Ave., Johnstown, N. Y., will send you facts on Gelatine in the Diet, prepared by accredited authorities, and free diet recipe books to give to patients.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

KNOX *is the real* **GELATINE**

BE SURE TO SPECIFY KNOX

DIGITALIS THERAPY DEMANDS UNIFORMITY

THE Lederle Tablets of Digitalis were perfected as a result of six years' experience in the Cardiac Clinics of Greater New York with tablets of standardized digitalis leaf having a potency of 1 cat unit in 1½ grains of powdered leaf.

Only digitalis leaf which has been clinically demonstrated to possess *uniform activity*, is used in the preparation of Lederle Digitalis Tablets.

The intravenous method of Hatcher and Brody used by the Lederle Laboratories directly measures the cardiac effects of the drug.

Digitalis Tablets Lederle are supplied in packages containing 100 tablets (5 tubes of 20), in three sizes: ½ Cat Unit (¾ grain*), 1 Cat Unit (1½ grains*), 2 Cat Units (3 grains*).

*The comparison of the cat unit of digitalis to the grain of powdered digitalis leaf refers to the leaf selected as described above for the Lederle product namely, that one and one-half grains of the powdered leaf assay one cat unit. In the above table, grains are stated only as an approximate guide to the physician who has heretofore based his dosage on weight or volume.

Literature on Request

Distributed by

HEALY & OWENS

1400 Larimer Denver, Colorado

LEDERLE LABORATORIES INC.

New York

MILK

has almost TWICE the food-energy value when Cocomalt is added

MORE AND MORE physicians are using Cocomalt in milk for high-calory feeding cases—for malnourished children—for convalescents—for expectant and nursing mothers.

Milk alone is not always palatable to those who need it most. *Cocomalt in milk,* however, is delicious, tempting—a real treat not only to children but to your grown-up patients as well.

Prepared according to simple label directions, Cocomalt adds 110 extra calories to a glass of milk—increasing its food-energy value more than 70%. Thus every glass of Cocomalt a patient drinks has the nourishment (food-energy) of almost two glasses of plain milk.

What laboratory analysis shows

Cocomalt, prepared as directed, increases the protein content of milk 45%, the carbohydrate content 184%, the mineral content (calcium and phosphorus) 48%. Each ounce of Cocomalt—the amount used in mixing one glass or cup—contains not less than 30 Steenbock (300 ADMA) units of Vitamin D.

Cocomalt comes in powder form, easy to mix with milk—hot or cold. At grocers and drug stores in ½-lb. and 1-lb. cans. Also in 5-lb. can for hospital use, at a special price.



CHILDREN need the extra calcium, phosphorus and Sunshine Vitamin D which Cocomalt provides.



CONVALESCENTS enjoy Cocomalt. It provides hyper-nutrition without digestive strain.

FREE to physicians

For a trial-size can of Cocomalt *free,* just mail coupon with your name and address.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

Cocomalt is accepted by the Committee on Foods of the American Medical Association. That is your guarantee of its trustworthiness. Cocomalt is also licensed by the Wisconsin Alumni Research Foundation under Steenbock patent.

Cocomalt

Cocomalt is a scientific food concentrate of sucrose, skimmed milk, selected cocoa, malt extract, vanilla flavoring, and added Sunshine Vitamin D.

ADDS 70% MORE NOURISHMENT (FOOD-ENERGY) TO MILK

(Prepared according to label directions)



R. B. Davis Co., Dept. 43Y Hoboken, N. J.

You may send me a trial-size can of Cocomalt without cost or obligation.

*Name*_____

*Address*_____

*City*_____ *State*_____

THE TROWBRIDGE TRAINING SCHOOL

A HOME SCHOOL for NERVOUS and BACKWARD CHILDREN

The Best in the West

Est. 1917

Beautiful Buildings and Spacious Grounds, Equipment Unexcelled, Experienced Teachers, Personal Supervision given each Pupil. Resident Physician. Enrollment Limited. Endorsed by Physicians and Educators. Pamphlet upon Request. Address

E. HAYDN TROWBRIDGE, M. D.
1850 Bryant Bldg., Kansas City, Mo.

« CAMP »
SURGICAL SUPPORTS

Competent Fitter

SYBIL CASSELL

Ethical cooperation with the medical profession.

1621 Tremont Street

PRINTING
in All Its Forms

—for Physicians, Dentists, Hospitals, Sanitariums

Stationery — engraved or printed, booklets, professional cards, programs or whatever you may need.

We ask the privilege of planning your designs

Reprints from Colorado Medicine our Specialty

Western Newspaper Union
P. O. Box 1320
Denver, Colorado

vices could be conducted for the student in the right way they would make a very valuable curriculum. For instance, the student in the laboratory could make an excellent association with various medical conditions if an expert teacher were ever present to help her make the correlation between the laboratory work, the condition of the patient, and how it would assist her in giving better nursing care. And so with the x-ray department. The only object I can see for giving x-ray training should be to improve nursing care in fracture cases and other cases which would be correlated.

How can a detached service of this type really improve nursing care? The student nurse in the x-ray room learns the mechanical procedures involved in taking and developing pictures. She usually sees the pictures and may hear the reading and may be expected to take dictation. How valuable do you think this is in improving the nursing care of the patient? Would it not be better if the nurse could have the x-ray pictures used in discussion of an individual patient in relation to the nursing care? For instance, in teaching nursing care of fractures, would it not be better to start with an individual patient for whose care the student is responsible, show and discuss x-ray pictures, and teach them the manner in which these fractures should be handled by the nurse. The importance of position, weights, etc., could be more greatly emphasized with the use of the x-ray plates.

What does the nurse do in the laboratory? It is a detached service at best—detached from the patient. The student learns laboratory routine—routine urine examinations exclusive in most instances of the microscopic examination. She may help to stain and examine slides. A busy technician has little time to consider nursing care and consider what is valuable to the nurse. It would be better if the teacher of medical nursing helped the student to make her correlation with the patient. Consider a diabetic patient for example. We agree that a nurse should know how to test urine for sugar. Patients can readily be taught to do this. It does not require a laboratory course for a

Deep Rock

Distilled Water

Many of the ordinary so-called distilled waters contain iron or copper salts—caused by contact with iron or copper condensers.

Deep Rock is distilled from pure, soft artesian water. It comes in contact only with pure block tin in distillation and is free from mineral salts, making it an exceptionally PURE product for laboratory use.

Phone

TA. 5121

Deep Rock Water Co.

It's *Always* SUMMER *for* INFANTS *on* S.M.A.

—because S.M.A. prevents Rickets and Spasmophilia.



SUMMER sun is an effective antirachitic agent but the physician cannot always depend on it, so he usually prescribes cod liver oil.

However, it is sometimes difficult to get the infant to accept cod liver oil, whereas it is easy to give it to him in the form of S. M. A. — a dependable automatic method of preventing rickets.

For infants deprived of breast milk, S. M. A. is a close adaptation to breast milk, with the advantage that it contains enough biologically tested cod liver oil to prevent rickets and spasmophilia and the additional advantage that this cod liver oil is uniformly distributed in each feeding and is properly emulsified for easy assimilation.

S. M. A. is not only simple for the mother to prepare but also simple for you to prescribe, relieving you of exacting detail in infant feeding.

Physicians have prescribed S.M.A. for more than 250,000 infants with excellent results.

Don't you want to try S.M.A. in your own practice? A trial supply with feeding suggestions is yours for the asking.

ACCEPTED AMERICAN MEDICAL ASSN.

What is S. M. A.?

S.M.A. is a food for infants—derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar, potassium chloride and salts; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

Ethical? Certainly

No directions are given to the laity and in addition from the very beginning every package of S. M. A. has borne this bold statement: "Use only on order and under supervision of a licensed physician. He will give you instructions".



S. M. A. Corporation

4614 Prospect Avenue

CLEVELAND, OHIO

San Francisco and Toronto

COPYRIGHT 1932, S.M.A. CORPORATION

(Attach to your prescription blank or letterhead. 23-122

Low Fares EAST

Home Visitors' EXCURSIONS

TO—	Round Trip Fare
New York (Via Standard Lines)	$93.35
New York (Via Differential Lines)	90.65
Cincinnati	60.30
Montreal	88.70
Memphis	53.55
Lincoln	23.20
Omaha	25.80
Council Bluffs	26.20
Sioux City	29.80
St. Joseph	29.45
Kansas City	30.35
St. Louis	43.75
Des Moines	33.00
Chicago	49.75
Milwaukee	50.65
St. Paul	42.60
Minneapolis	42.75
Duluth	49.80

Similar low fares to a few other eastern destinations.

Half fare for children. Baggage may be checked.

Tickets will be honored in sleeping cars upon payment of the usual Pullman fare.

GOING—Tickets will be honored on all trains leaving Denver Dec. 3, 10, 17, 20, 21.

RETURN LIMIT—Midnight, February 28, 1933

Also greatly reduced fares to many destinations for Christmas and New Year Holidays

BURLINGTON ROUTE

901 Seventeenth St. Phone KEystone 1123

F. W. Johnson, *General Agent*

nurse to learn how to do it? It would become a more vital thing to the nurse if when studying diabetes and caring for a diabetic patient she were required to do the routine examination of urine and make the correlation with the nursing care. In case of tuberculous sputum, it would be more satisfactory from the nursing standpoint if the student was required to prepare a specimen of sputum for the laboratory, observe its preparation, see it under the microscope, and have a discussion with the supervisor concerning the characteristics of the bacilli and of the disposition of sputum to prevent their dissemination.

The drug room provides splendid cooperation. The student spends the major part of her time filling capsules, making prescriptions under supervision, and performing other routine procedures which, however, have little educational value so far as nursing is concerned. A nurse who has filled a hundred capsules has not necessarily an improved conception of its administration. Would it not be more satisfactory if a study of drugs was made in relation to their pharmacologic action, the patient, and the disease?

Other points of discussion are:

1. An argument for including specialties among the basic courses is that it gives the student a conception of what the service offers so she will know what field she might care to enter. This is a very worthy reason for offering special courses. But with all the instruction and experience that is necessary in order to give her a basic foundation again comes to mind the theme song, "What are We Educating Nurses For?" I wonder whether we can afford to devote much time to what might be called extracurricular activities.

2. A point of argument against including specialties is that some students think they are technicians or pharmacists when they have a month's course. Probably this is due to faulty teaching, but I have known many nurses who have gone out and taken positions where they were required to take x-rays and do a certain amount of routine laboratory work. A little knowledge is a

MERCUROCHROME

220 SOLUBLE

in

OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50 per cent when Mercurochrome was used for routine preparation.

Write for information.

Hynson, Westcott & Dunning
Inc.
Baltimore, Md.

MAin 7318 *Rosella Wiley*

The
THERAPEUTIC BATH INSTITUTE

We Cooperate with the Medical Profession

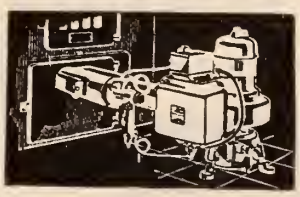
621 19th ST. DENVER

Cooperating with the Ethical Medical Profession



Colorado Artificial Limb Company,
Inc.

Suite 49 Good Block
Phone MAin 2866
1557 Larimer St.
Denver, Colo.



WAYNE OIL BURNERS

HEALTHFUL — Automatic
Economical Oil Heat
With SAFETY

Provides "New Freedom" From Furnace Worries

Refrigerating & Oil Heating Service
Distributors
251 Broadway SPruce 3610

A Real Flush Valve



This valve is good enough for Denver's magnificent new Court House and the finest buildings.

You can keep Colorado the white spot on the industrial map.

Yes, we know you will.

Thank you, all is well.

The White Flushing Valve Mfg. Co.

KEystone 0946 Denver, Colorado

Trademark Registered **STORM** Trademark Registered

Binder and Abdominal Supporter



Gives perfect uplift. Is worn with comfort and satisfaction. Made of Cotton, Linen or Silk. Washable as underwear. Three distinct types, many variations of each.

The Picture Shows "Type N"

Storm belts adaptable to all conditions, Ptosis, Hernia, Pregnancy, Obesity, Sacro-Iliac Relaxations, High and Low operations, etc.

Ask for Literature

KATHERINE L. STORM, M.D.

Originator, Owner and Maker

1701 Diamond St. Philadelphia

dangerous thing. I heard one nurse say she didn't think much of her training school because she only had one month in the laboratory and she had to take special work to become a technician.

3. A point of argument, perhaps least worthy, is the economic side. Students learn to do considerable mechanical work and so become valuable as a means of cheap help. Don't misunderstand that I think any hospital organization consciously uses students in this way; we always endeavor to justify our actions by saying that it is of value one way or another to the students. It certainly does not hurt them. A young nurse will many times step in and do things that an older and more experienced nurse would hesitate to do.

Closing, let me repeat the questions, what are we educating nurses for, and what is the place of the specialties in the basic course? I should like very much to know your opinions.

EDITORIAL NOTES AND COMMENT

(Continued from Page 459)

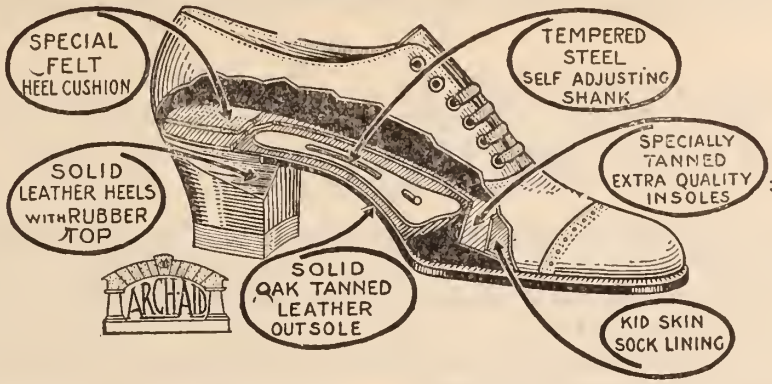
Social Insurance Impossible to Abolish When Once Established*

The worst feature of Social Insurance is the fact that when this parasite once gets its suckers well fastened into the vitals of a nation, nothing short of either national bankruptcy, a dictatorship, or a revolution will be able to loosen its hold.

Germany, which has had Social Insurance on its statute books the longest, has for a considerable time been on the verge of bankruptcy. While other facts are operative, we believe that the billion dollars which Social Insurance costs the nation every year is one of the chief reasons why Germany is unable to make a satisfactory "comeback" to normalcy.

(Continued on Page Twenty-Six)

*One of a series of articles on Health Insurance by Dr. Edward H. Ochsner.



Fitting shoes is our specialty. We are anxious to do it perfectly because we know that practically all foot ailments begin with poorly fitted shoes. We are anxious to give your patients the maximum of comfort and assurance against foot ills, and this very often will help along your treatments. Your prescriptions for the proper shoes will be filled correctly.

ARCH-AID SHOES CLUB FOOT SHOES

Doctors are invited to send or bring their patients to this store.

REPUBLIC ORTHOPEDIC SHOE CO.

335 SIXTEENTH STREET

MAin 6024 Republic Building, Street Floor Denver, Colo.



The Porter Sanitarium and Hospital

DENVER COLORADO

This latest addition to Denver's splendid group of health institutions presents a distinct type of service as typified in its sisterhood of one hundred health units the country over. Our world-wide organization is backed by fifty years' experience in sanitarium management.

Members of the Colorado and Wyoming State Medical Societies welcomed to our staff.

2525 SOUTH DOWNING ST. PEarl 3721

The GLOCKNER SANATORIUM

Pre-eminent climatic conditions for treatment of tuberculosis in the shadow of Pikes Peak.

Supervised by the Sisters of Charity of Cincinnati, though non-sectarian in relations with patients.

Complete in every detail, providing all approved diagnostic and therapeutic aids the physician might need.

Entire wing available for surgical cases of all kinds and a beautifully appointed new maternity wing.

Adjacent cottages maintained for open-air life without sacrificing the comfort of the patient.

Designed throughout to dissipate the individual dread of institutional living.

Illustrated descriptive booklet and any special information desired sent to physicians or prospective patients on request.

COLORADO SPRINGS
COLORADO



THE CHILDREN'S HOSPITAL ASSOCIATION
of DENVER

NON-SECTARIAN——NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region from Birth to Maturity

Every modern scientific aid available to the physicians and surgeons of Colorado and Wyoming

Rated Class A
By A. C. S. and A. M. A.

Full Three-Year
Nurses' Training Course

CRAGMOR SANATORIUM

The Cragmor Sanatorium is an institution designed especially for the treatment of tuberculosis; but, building upon the soundest principles of medical science always, it also recognizes a need for mental buoyancy.

There is ever an air of human happiness about the place—caught perhaps from the sunshine, the freshest of mountain air, the delight of days that will not allow one to remain ill!

Well up on the rise of Austin Bluffs, five miles from the heart of Colorado Springs, Cragmor commands an excellent panorama of Pikes Peak and the Rampart Range. Restful but not oppressive quiet pervades everywhere.

Cragmor Village, in connection with Cragmor Sanatorium, occupies the wide swing of Austin Bluffs to the east of the sanatorium proper and consists of eighteen commodious homes where the patients may continue convalescence under the supervision of the Cragmor Staff.

For Further Information Write to the
Physician-in-Chief

COLORADO SPRINGS
COLORADO



ST. JOSEPH'S HOSPITAL

1818 HUMBOLDT STREET, DENVER, COLORADO. PHONE FRanklin 3772

Conducted by the Sisters of Charity of Leavenworth, Kansas

A GENERAL HOSPITAL, MODERN IN EQUIPMENT

APPROVED FOR INTERNS ACCREDITED SCHOOL OF NURSING



WOODCROFT HOSPITAL—PUEBLO, COLORADO

Woodcroft Hospital was established in 1896 by Dr. Hubert Work, since which time over five thousand cases have been treated. The ideal climate of Pueblo, which enjoys almost daily sunshine, is an advantageous factor in the location of this hospital. The hospital is arranged to care for all forms of nervous and mental diseases, allowing segregation of the different types and thus avoiding unpleasant contacts. In addition to the strictly neuropsychiatric cases we also specialize in the treatment of drug addiction and alcoholism. Hydrotherapy, physiotherapy, physical exercise and other therapeutic measures are employed when indicated. Special emphasis is placed upon occupational therapy, individual care and attention, and an endeavor to make the surroundings as homelike as possible. Tennis, croquet, pool, miniature golf course and radio offer means of recreation. The accommodations range from single room with or without bath to rooms en suite. Illustrated booklet will be sent on request.

For detailed information and reservations address

CRUM EPLER, M.D., Superintendent

H. A. LaMOURE, M.D., Medical Director **F. M. HELLER, M.D., Neurologist and Internist**

P. A. DRAPER, M.D., Resident Physician





THE COLORADO SPRINGS PSYCHOPATHIC HOSPITAL

A Private Hospital for Nervous and Mental Diseases

Situated in a beautiful valley two miles south of Colorado Springs, which is nationally known as a health center. New building for mild cases of Functional Neurosis, affording complete classification of patients. Home-like surroundings, scientific medical treatment and nursing care. Booklet and rates on application. E. J. Brady, M. D., Superintendent, Colorado Springs, Colorado.

HAGBERG'S
Convalescent Home

Located in the residential section of the city, adjacent to Cheesman Park. Special attention to diets—tray service—nurses' care.

Reasonaable Rates

1212 Vine Street Denver, Colorado

SPECIAL PRINTING For PHYSICIANS

8½x5½ letterheads, statements and envelopes, professional cards and prescription blanks, 1,000 $2.

5,000 of either, $7

Perfect job on high grade bond paper

Address

David Nichols & Company
KINGSTON, GEORGIA

The "WORRELL"

(HEALTH HOME)

FOR OLD FOLKS

Where the rate is low enough to be within the means of the most economical.

37 LINCOLN ST.

ANN ROWLAND HOME

A QUIET, centrally located private home where elderly people are welcome. Sensible meals, appetizingly served. Practical nurse renders every assistance. Not an institution—not a sanitarium—just a home with home comforts.

1579 EMERSON TAbor 0027



The MATCHETT

1101 GAYLORD ST. YOrk 5444

A refined, exclusive home for old people, convalescents and mental cases. Competent nurses day and night. Beautiful rooms, well ventilated and comfortable. Reasonable rates in accordance with service and care.

NOT AN INSTITUTION
Established Over 30 Years

MRS. CAROLINE M. MATCHETT
Formerly Mrs. Caroline Gregerson

MENTION COLORADO MEDICINE

NO CULTURES NEEDED



The rational, natural way to change the intestinal flora is by changing the soil.

LACTO-DEXTRIN
(Lactose 73% — dextrine 25%)

Provides the desirable carbohydrate medium for the growth of the normal protective germs in the colon.

Samples and literature on request.

The Battle Creek Food Co.
BATTLE CREEK MICHIGAN

Announcing *The Introduction of*

THE STILPHEN
AIR CONDITIONING UNIT

Dependable—Simple—Economical
Particularly adapted for Hospitals—Institutions
Write for circulars illustrating and describing this machine

C. A. Stilphen Engineering and Manufacturing Co.
1129 Eighteenth St., Denver, Colo.
KEysotne 0929
Exhaust Fans for Ventilation

Nature Made It!



ORIGINAL
MANITOU
Sparkling
Water

IN ACIDOSIS
It supplies those bases needed to maintain an alkali reserve, i. e., calcium and magnesium bicarbonates and bicarbonate and potassium sulphate.

The
Manitou Mineral Water Co.
Manitou, Colorado

Social Insurance Impossible to Abolish When Once Established

(Continued from Page 20)

England is not much better off. The chief reason for England's present difficulties is the terrific burden of taxation which she has to carry. One writer says: "A complete understanding of the problems confronting England at the present time involves going back to 1909 when we had just adopted old age pensions and destroyed the foundations of thrift." In 1911, England introduced National Insurance when three per cent of its workers were unemployed. After twenty years of operation of the act, 17 per cent of her workers are out of work. As a partial explanation for this condition let us cite just one example from among scores and hundreds that could be given. A manufacturer found that his orders were only sufficient to give work to all his employees four days a week so he called his workers together and told them the facts. The workers, however, insisted that they would work only three days a week in order that they could draw the dole for the other three days. An English writer commenting on this says: "It is a great mistake to worry about the much discussed abuses of the system. It is the system which is fundamentally wrong and abuse is inseparable from it."

To get an idea of the tax burden which England is carrying, we need but cite facts. In that country all incomes of seven hundred and fifty dollars are taxed 25 per cent. Higher incomes carry an additional surtax. Increased taxes have increased the production cost of practically all articles of manufacture and, as a consequence, have actually increased unemployment because English Industry carrying this extra burden has not been able to compete with other countries in the world markets. In spite of these burdensome taxes and in spite of the fact that living expenses had gone down 11½ per cent, the recent labor government refused to cut the sick benefits 10 per cent and put the nation to the expense and turmoil of a

The General Use of ORANGE TANG Is Becoming Well Established in

HOSPITALS AND SANITARIUMS

There's a Reason for It!

ORANGE TANG

is made from orange juice concentrated and dehydrated.

It has the fresh, delicate, piquant flavor of the original orange and the natural mineral contents.

Have you tried ORANGE TANG TABLE SYRUP? It is delightful. For people who are particular and ones who like syrup but syrup does not like them—here's an innovation.

Samples Supplied on Request

COLONIAL FOOD PRODUCTS COMPANY

814 TWELFTH STREET DENVER MAin 9129

For the Expectant YOUNG MOTHER

To meet the needs of the young woman who is to become a mother for the first time, this particular Camp Support (Model No. 3011, illustrated at the right), is specially designed. It is shown on an actual four months' pregnancy case. Like all Camp Maternity Supports it allows for growing development. The extra front lacings make it easy to adapt the garment to the gradual changes in figure size that occur, while providing the proper uplift to organs and preventing pressure on the bladder or other undue strain. Splendid sacro-iliac support and symmetrical body lines are afforded. The Camp Patented Adjustment makes these features possible.



Sold by Surgical Houses, Department Stores and Corset Shops.

CAMP TRADE MARK

Physiological Supports

Write for Physician's Manual, Women's Section.

S. H. CAMP & COMPANY

Manufacturers, JACKSON, MICHIGAN

CHICAGO
1056 Merchandise Mart

NEW YORK
330 Fifth Avenue

LONDON
252 Regent St., W.

At Last!—
WHOLE WHEAT BREAD
The Way the Doctor Wants It
VITAMINES—NUTRITION—ROUGHAGE
All the nutrition of the wheat grain retained.
Nothing added—nothing taken away.
OTTO'S BAKERY
Wm. Otto
611 N. ROYER ST. MAIN 4778
COLORADO SPRINGS
Where a High Standard of Cleanliness Always Prevails

COLORADO COLLEGE of PODIATRY
1554 California St., Denver
Bertha DeWolfe, D.S.C., Dean
Scientific Chiropody. Foot health and foot correction as taught here are far in advance of formerly accepted ideas of chiropody. We arrange for special P. G. work for physicians, with personal instruction in technique under Bertha DeWolfe.

When you see me, don't think of Life Insurance
When you think of Life Insurance see me
GEORGE W. MATTSON
Specializing in Estate Conservation
201 Republic Bldg. Ke. 6495

national election practically on this issue alone.

The countries just cited are not the only ones encountering similar difficulties. A recent newspaper article contained the statement that there are more than one hundred and fifty federal boards and commissions in Washington each with three or more members drawing salaries and each with a bevy of clerks, most of them just drawing salaries. Many of these were created during the World War. When a few far-sighted individuals remonstrated against the appointment of so many boards and commissions they were assured that they would all be abolished at the end of hostilities. It is now fourteen years since the signing of the Armistice, but not one board has as yet been abolished.

Another illustration is the frankling privilege to country newspapers. This privilege was extended to them when it was deemed desirable to disseminate news and information to rural inhabitants, particularly to detached settlements. It was a wise and legitimate step at the time, but now it is just a plain nuisance and yet no congressman would dare to suggest its abolition. It is costing the taxpayer and consumer a great deal of money and serves no useful purpose. A town of ten thousand and fewer inhabitants usually has two and sometimes three local papers all enjoying this privilege. The local merchants are compelled to advertise in all of them, the expense of which must of necessity be passed on to the consumers. Incidentally this favors the mail order houses to the detriment of the local merchant.

There are many reasons why it is almost impossible to repeal the laws governing such practices. One reason is that executives and legislators do not want them repealed because it reduces the power which they derive through political patronage. The more patronage the individual in office has at his disposal, the more difficult it is to dislodge him. Even today it is very difficult to defeat a public office holder with a large political patronage, no matter how inefficient he may be, except by another who

DOCTOR: PHOTOGRAPHIC ART IS THE IDEAL CHRISTMAS GIFT

It is personal—individual—sincere.

The cost is in keeping with the times. The work is what you would expect from the foremost studio of the Rocky Mountain section.

MAin 5710 **G. ALLEN LAINSON STUDIOS** DENVER

BROWN PALACE HOTEL

LEARN REAL SWEDISH MASSAGE

Thoroughly and Scientifically
Special classes for Nurses.

Limited Class Now Forming
Treatments in your home by appointment

DENVER SCHOOL OF SWEDISH MASSAGE, Inc.

FRanklin 0907R *Elna Hoagland, Pres.* 3762 High St.

AIR TRANSPORTATION

Safety — Comfort — Speed

Waco and Stinson Aircraft

READY TO GO—WHEN YOU ARE



WESTERN FLYING SERVICE

Municipal Airport, Denver. Ph. York 8273

Physicians Who Know, Recommend

POLAR BEAR ICE CREAM

Because of Its Outstanding Purity



Mee Bros,
Proprietors

PHONE
YOrk 1313

Fine Upholstered Furniture Made to order

Furniture repairing of all Kinds

Henry Meyer

Upholsterer and Furniture Manufacturer

DENVER

538 East 17th Ave., at Pearl St.

Phone TAbor 4087

The Cocks-Clark *Engraving Co.*

Illustrators — Designers

Photo Retouchers and Engravers

Tabor 6244

2200 ARAPAHOE ST.

DENVER



OUR efforts are directed toward giving the public the best milk possible, keeping in mind that milk, to be good, must be clean. Rich, pure milk, properly pasteurized plus the "Silver Seal" Meadow Gold bottle, assure you to the utmost in quality and cleanliness.

WINDSOR-MEADOW GOLD

MAin 5131

either already has large political patronage or who promises jobs to his supporters irrespective of their qualifications. Thus in many elections the voter is simply left to choose between two undesirable candidates. Already the number of payrollers has become so large and so politically active and influential that they yield great power in both political parties. If we then add compulsory health insurance we will add further thousands to the lists of our civil employees. Those who are not in government employ will be powerless to control government and their only function will be to pay the taxes which others impose upon them. Instead of increasing the number of government officials and employees, the ideal to be constantly kept in mind and striven for in this country is to permit the private citizen to perform all those functions that he can best perform and that make for independence, self-reliance, and strength of character and to have the government do only those things which the individual cannot do satisfactorily. We maintain that centralization in government and paternalism have already gone much too far and that Social Insurance would simply be another step in the wrong direction.

Another reason why it will be difficult to repeal such laws is the fact that men in the different services of the government do not dare to expose its faults for fear of being accused of disloyalty. Reports must be couched in the most mild and ineffective language possible, and then they must not be released to the public, but allowed to die as still-births in the departments. We all know what happened to General Mitchell who dared to disregard these rules. Major-General Robert Alexander also tells in the introduction to his Memoirs of the World War just how this worked in at least one other instance.

In most countries which have Social Insurance such laws were first suggested and urged by welfarers, uplifters, and visionaries who unwittingly played into the hands of practical politicians. Even now few seem to realize that bureaucracy in a republic

AURORA SHEET METAL WORKS

The Recollection of Quality Remains Long After the Price Is Forgotten

WARM AIR SPECIALISTS

Modern Air Conditioning for Homes of any size, Your present Warm Air Plant Modernized. Gas, Coal and Oil Furnaces, Air Washers and Humidifiers for Steam and Hot Water Plants. Sheet Metal Work in all branches. Repairing.

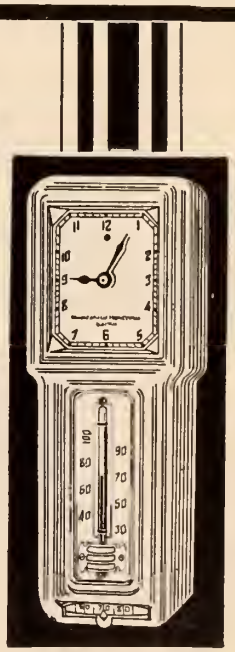
Drop us a card or phone for inspection and survey of your heating plant. No obligation on your part.

Phones
Res. YOrk 6677J
Shop, Aurora 92J

This Winter---Keep Your Family Off Your Patients List

AS A DOCTOR you know the danger of homes with unregulated temperature. . . . Give your family the same controlled heat that you insist on for your patients.

You can secure all lof the priceless advantages of automatic heat control by equipping your heater with a Minneapolis-Honeywell Heat Regulator. Modest in cost, but destined to give you a lifetime of faithful, automatic service. May be purchased on modern finance plan, 'phone or write for complete information.



Beautiful Electric Clock Thermostat with self - starting motor.

THE DALY COMPANY

DISTRIBUTORS

1635 Blake Street Denver, Colorado

Phone TAbor 6166

BRONZE TABLETS
BENEFACTOR'S MEMORIAL PLATES FOR HOSPITALS
IN STAMPED BRASS OR CAST BRONZE
BRASS AND BRONZE SIGNS
FOR THE PHYSICIAN
SACHS-LAWLOR
DENVER
ESTABLISHED 1881

CAMP
SURGICAL AND SEMI-SURGICAL SUPPORTS
Maternity Post Operative
Convalescing and Ptosis Supports
Abdominal Belts
Sacro-Iliac Binders, Orthopedic Back Splints
Mrs. J. M. Blinn Pfister, *Nurse*
SURGICAL CORSETIERE
Phone Main 7530
Hours, 7 a. m. to 1 p. m.
1515 Glenarm St. Denver, Colo.

The Necessary Carbohydrates for Infant Feeding (Dextrose Maltose and Dextrin) can be economically provided by Recommending
BANNER BLUE CORN SYRUP
ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods
BANNER BLUE CORN SYRUP
Can be obtained from local grocers.
Packed by
D. B. Scully Syrup Co.
Chicago, Illinois

may become just as unreasonable, oppressive, and ruthless as a despotism.

It will be interesting to see whether we shall be able to profit by the experience of others or whether as a nation we belong to that class of human beings who can learn only by dire personal experience or from national disaster.

(The next article will offer a number of counter-suggestions in place of Social Insurance).

IMMATERIA MEDICA

There was a woman so dumb she thought traffic buttons were used to hold up the outskirts of the city.

* * *

The banquet was great. Two of the speakers got fishbones caught in their throats and couldn't say a word.

* * *

"There you are, sir," said Dr. Knobbs to his patient. "My bill for improving your hearing comes to exactly $25."

The patient shook his head. "Did you speak, doctor?" he asked. "If so, I didn't hear a word that you said."

"Hm," sniffed the doctor, "perhaps I'd better make it $10."

"That's better, doctor," said the patient readily enough. "That's all right."

* * *

Mrs. Simpleton was under medical attention for her eyes.

One day she called at the doctor's office.

"I say, I forgot to ask you about the eye lotion you sent me."

"Well, what have you done about it," the doctor asked?

"Nothing yet, do I drop it in my eyes before or after meals?"

* * *

A philanthropic woman was visiting a lunatic asylum. There was one old man there who roused her special compassion.

"How long have you been here, my poor man?" she asked.

"Twelve years."

After several more questions she passed on, and her guide informed her that the old man was the medical superintendent.

"I'm so sorry, doctor," she cried, hurrying back. "I'll never judge by appearances again."

* * *

A scientist has discovered that fear reactions originate in the brain. That explains why it's next to impossible to scare some people.

* * *

"Did you travel in Europe to satisfy your thirst for knowledge?"

"No, just my thirst."

HEAT WITH OIL!

Consult your physician in regard to the kind of heat that is most healthful for you and your family.

Our oils are of the finest quality and meet the manufacturer's recommendations prescribed for your burner.

THE NAVY GAS AND SUPPLY CO.
(SHELL PRODUCTS)
4700 YORK PHONE KEy. 5141

Attention of Every Doctor
Is Invited to the
PALMER CENTRAL BUSINESS SCHOOL
Denver, Colorado 1080 Broadway TAbor 1081

1. We are now prepared to supply temporary or permanent Secretaries who are trained in the art of carefully handling your patients.
2. Every assistant is selected with the view of doing the work in the Doctor's office.
3. Each Secretary is especially schooled in the collection of accounts—they are able to satisfactorily take over your collections. This arrangement is very gratifying, inasmuch as they are trained to retain the friendship of your patients, and at the same time get the money whenever possible.

Our School has only the best! We are out of the congested district—close to the best homes in Denver.

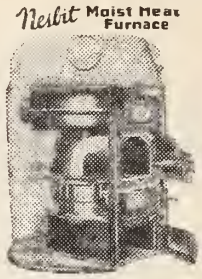
We invite enrollment of students from the Doctor's family, and those recommended by him. Character references required.

We are pleased to take a local student and give them training for your particular work. Write for particulars.

COAL or GAS FURNACES

REPAIRING
INSTALLING
CLEANING

Friendly service always at a price you are glad to pay.



W. F. HIND

1139 LIPAN ST., DENVER KEystone 2631



SMALL ANIMAL HOSPITAL

Expert animal surgery made possible by modern equipment.

DR. H. G. WEIGAND
DR. M. E. SPRATLIN

2750 South Broadway Phone SPruce 0391
Denver

WHEEL CHAIRS FOR SALE OR RENT

WM. JONES

Maker of All Kinds of

ORTHOPEDIC APPLIANCES

Trusses, Braces, Abdominal Supports
Elastic Hosiery, Crutches, etc.

608-612 Fourteenth St.

Phone KEystone 2702

Denver, Colo.

Four absent-minded college professors were out for a ride. The driver hit a terrific bump. One of the professors in the rear seat leaned over and said:

"Pardon, but your wife is not with us."

"Good heavens!" said the driver. "Why she must have gone out when we bumped."

He backed the car for nearly a mile, but there was no sign of a living soul.

"Come to think of it," said one of the others, "are you sure your wife was with us?"

"To tell the truth, I don't believe she was," said the driver, doubtfully. "How stupid of me."

"But tell me, said the professor who had not spoken, "I thought you got a divorce two or three years ago—didn't you?"

"Well, of all things!" said the driver, laughing heartily. "Of course I did, I must be getting absent-minded."

* * *

"Why did she withdraw after she had received the nomination?"

"They told her, if elected, she would become a member of the Common Council, and you know how particular she is."

* * *

Jones: "Say, that's a wonderful follow-up system you have there for collections. Where did you come across it?"

Brown: "I just saved the letters my son sent me while at college and adapted them to my business."

* * *

Registrar: "Well, what do you want?"

Freshman: "I wanna vote; I registered here a few weeks ago."

* * *

Elevator Boy: "Up or Down?"

Inebriated: (Very sick): "Oh, I wish I knew."

* * *

Professor: "I would like a preparation of phenylisothiocyanate."

Drug Clerk: "Do you mean mustard oil?"

Professor: "Yes, I can never think of that name.

* * *

Among the jurors summoned was a woman who wished to be excused.

"Well, madam, why don't you want to serve on this jury?" asked the judge.

"I'm opposed to capital punishment."

"But this is merely a case in which a wife is suing her husband for an accounting. It seems she gave him a thousand dollars to pay down on a handsome fur coat and he is alleged to have lost the money at poker."

The woman juror spoke up promptly, "I'll serve. Maybe I'm wrong about capital punishment."

* * *

"There's mother's ashes in the jar on the mantlepiece."

"So your mother is with the angels?"

"No, Sir, she's just too lazy to look for an ashtray."

* * *

"I hear you are a collector of antiques."

"Yes, I have a very rare typewriter which was owned by Napoleon."

"But that's impossible. Typewriters hadn't been invented in Napoleon's time."

"I know it. That's what makes it so rare."

WE GIVE YOU OUR BEST

In the Real Quality of

TAYLOR-MADE

Corsets, abdominal belts and KENLASTIC stockings, with SERVICE made possible by many years of experience in surgical fitting.

CHAS. B. E. TAYLOR

ELIZABETH KENDRICK TAYLOR

204-5 McClintock Building
1554 California St.
Denver, Colo.
MAin 2357

PHOTO ENGRAVING
AND
MAP MAKING

COLOR PLATES—HALF-TONES AND ZINC ETCHINGS

Mail this ad and 50c for a copy of our new two color—24"x30" Relief Road Map of Colorado.

Andrew Daniel Clyde H. Smith

DANIEL-SMITH CO.
PHOTO ENGRAVERS AND MAP MAKERS
KEYSTONE 5634 -830- 10TH ST.
DENVER, COLO.



Guard Your Family Against Cold Draughty Rooms

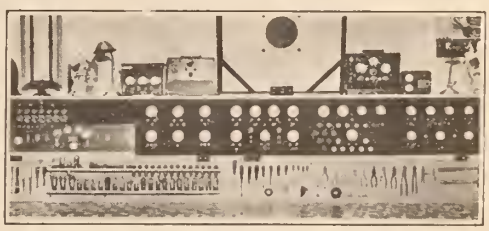
INSTALL A

AUTOMATIC RAY OIL BURNER

Uniform heat eliminates cold and sickness from your home.

Barnett Fuel & Oil Co.

3800 Wynkoop Denver — Phones KEystone 2323-5700



A portion of our well-equipped service shop

We now have on display the latest in

RADIO

For the Car
For the Home

Expert radio repairing on all kinds of radios. Installation and service of automobile radio.

WE SELL
MAJESTIC RADIO
ON TERMS

FRANK D. RAUBER

1428 Court Pl. TAbor 5589

THE TULANE UNIVERSITY
OF LOUISIANA
Graduate School of Medicine
Approved by the Council on Medical Education of the A. M. A.
Postgraduate instruction offered in all branches of medicine. Courses leading to a higher degree have also been instituted.
For bulletin furnishing detailed information apply to the
DEAN
Graduate School of Medicine
1430 Tulane Avenue New Orleans, La.

STAMMERING
STUTTERING
CORRECTED
OLIVER H. CLARK
Scientific Method
Phone Mornings: TA. 0456
1115 Grant St. Denver

24-HOUR SERVICE
AMBULANCE *and*
PULMOTOR SERVICE
DAY AND NIGHT PHONE
Main 830
John E. Wylie, Mgr.
112 Exchange Place, Colo. Springs, Colo.
Packard Invalid Sedan
Regular Equipped Ambulance

SHIRTS-CUSTOM-MADE
FIT FINISH FABRIC Guaranteed
Fashioned of Domestic and Imported Materials at Nominal Prices
BRAY & COMPANY
1752 CHAMPA, DENVER
Main 2735 F. C. DeBoer, Mgr.

The DOCTOR'S CAR
Is Given Special Attention
SHIRLEY GARAGE, Inc.
1637 Lincoln St., Denver TAbor 5911
DAY STORAGE $5 PER MONTH
Wash Given with First Month's Storage
Close to All Medical Buildings
Day and Night Service
Oiling and Greasing, Tire and Battery
Storage and Washing

"Say it with flowers"
Park Floral Co.
Phones M. 1713-1714 1643 Broadway

Our Service Department

Dear Reader:

Colorado Medicine together with the Co-operative Medical Advertising Bureau (a department of the American Medical Association) of Chicago have established a Service Department to answer your inquiries about pharmaceuticals, surgical instruments and other manufactured products such as equipment, supplies, etc., which you may need for your office, home, hospital, sanitarium, or automobile.

We invite and urge you to use this service. It is absolutely free and entails no obligation.

Between the offices of Colorado Medicine and the Co-operative Bureau we are equipped with catalogs and price lists of all manufacturers, and can supply the information you desire by return mail.

Whenever possible, such products are advertised in our pages. But perhaps you want a certain instrument or other product which is not advertised, and you do not know how or where to secure it. Colorado Medicine will give you the information.

Our address is 658 Metropolitan Building, Denver. We want to serve you.

COLORADO MEDICINE.

for Quality
Zinc Etchings
Color Plates - Half Tones
Seeleman-Ehret
Photo Engravers
Tabor 2701 — 1950 Champa Street
Denver Colorado

L. D. DUTCHER Phone 2995-R



DUTCHER AMBULANCE SERVICE
BALLOON EQUIPMENT
INVALID SEDANS
315 West 4th Street Phone 390
PUEBLO

WANTADS

POSITION WANTED

Graduate Nurse with five years surgical experience wants position in operating room or doctor's office. Will go out of Denver. Box 1, Colorado Medicine.

PRACTICE FOR SALE

Equipment and X-ray if desired. Terms. N. E. Colorado. Population 1,400. Address Dr. X, % Colorado Medicine.

POSITION WANTED

Registered technologist and registered x-ray technician with eighteen years' experience in tuberculosis work, the last sixteen years at Agnes Memorial Sanitarium. Now seeking location due to closing of the sanitarium on July 1, 1932. Margery M. Malins, 2265 Forest St., Denver; telephone FRanklin 1997-J.

Patronize Our Advertisers

PRESCRIPTION PHARMACISTS

to the members of the

COLORADO STATE MEDICAL SOCIETY

City	Name and Address	Telephone
Denver	R. K. ANTHONY, 4901 Lowell Blvd.	GAllup 0294
Denver	BAIRD Pharmacy, 3850 Federal Blvd.	GAllup 0549
Denver	BROTHERS Pharmacy, 5001 E. Colfax	YOrk 2171
Denver	ESHER Drug Co., 2335 E. 28th Ave.	YOrk 0296
Denver	IMPERIAL Pharmacy, 319 16th St.	KEystone 1550
Denver	MUDGE Pharmacy, 3801 Walnut St.	TAbor 4523
Denver	SIXTH AVE. Pharmacy, 600 E. 6th Ave.	SPruce 9706
Englewood	JOHN T. HEPPTING, 3398 S. Bdwy.	Englewood 744
Grand Junction	COPELAND'S Apothecary, 523 Main St.	Grand Junction 39
Littleton	LITTLETON Drug Co., Littleton	Littleton 133

ETHICAL ADVERTISING---

READERS of Colorado Medicine may trust our advertisers. Our Publication Committee investigates and edits every advertisement before it is accepted. It must represent an ethical and reliable institution and be truthful or it is rejected. These advertising pages contain a wealth of useful information, a world of opportunities. Read them all.

---WORTH YOUR WHILE

INDEX TO ADVERTISERS

Ambulance Service Co. ---36
American Medical and Dental Association ---Cover 3
Aurora Sheet Metal Works---31
Barnett Fuel and Oil Company---35
Battle Creek Food Company---26
Berbert and Sons---40
Bray and Company---36
Camp, S. H. and Company---27
Carlson-Frink and Company---1
Cassell, Sybil ---16
Chicago, Burlington & Quincy R. R.---18
Children's Hospital ---22
Clark, Oliver H.---36
Cocks-Clark Engraving Company---30
Cocomalt ---15
Colonial Food Products Company---27
Colorado Artificial Limb Company---19
Colorado College of Podiatry---28
Colorado Springs Psychopathic Hospital---24
Conway's Floral Shop---42
Corrective Foot Fitters---Cover 4
Cragmor Sanitarium ---23
Cutter Laboratory ---Cover 4
Daly Company ---31
Daniel-Smith Engraving Company---35
Deep Rock Water Company---17
Denver Fire Clay Company---9
Denver School of Swedish Massage---29
Dry Milk Company---13
Dutcher Ambulance Service---37
Florence Candies ---40
Garden Farm Dairy---29
Glockner Sanatorium ---22
Goalstone, Jos. ---3
Gorsline-Finch Sporting Goods Co.---3
Gray and Palmer---14
Hagberg's Convalescent Home---25
Hind, W. F.---34
Hynson, Westcott & Dunning---19
Jones, William ---34
Kendrick-Bellamy Stationery Co.---2
Kistler's Stationery Co.---4
Knox Gelatine ---15
Kroonenberg Milling Company---13
Lainson, G. Allen Studio---29
Lederle Laboratories ---15
Lilly, Eli & Company---10
Lorton, Howard, Inc.---41
Manitou Mineral Water Co.---26
Matchett, Mrs. Carolyn---25
Mattson, G. W.---28
Mead, Johnson & Company---6
Meeker Home ---14
Meyer, Henry ---30
Miles & Dryer Printing Company---41
Miller-Conlon Washing Machine Co.---42
Navy Gas and Supply Company---33
Nichols, David ---25
Old Homestead Bread Company---7
Otto's Bakery ---28
Owen Coal Company---39
Palmer Central Business School---33
Park Floral Company ---36
Parke, Davis & Company---5
Pfister, Mrs. J. M. Blinn---32
Porter Sanitarium ---21
Prescription Pharmacists ---37
Provident Mutual Life Insurance Co.---8
Public Service Company---Cover 2
Rauber Radio Service---35
Refrigerating and Oil Heating Service---19
Republic Orthopedic Shoe Store---21
Roche Ambulance Service ---11
Rollandet, Yvonne Studio---2
Rowlands, Ann ---25
S. M. A.---17
Sachs-Lawlor ---32
St. Joseph's Hospital ---23
Sanitary Specialties Co.---11
Scully, D. B. Syrup Co.---32
Seeleman-Ehret Photo-Engraving---37
Shirley Garage ---36
Shirley-Savoy Hotel ---40
Small Animal Hospital---34
Stern and Company ---42
Stilphen Engineering Co.---26
Storm, Katherine L., M.D.---20
Sturgeon Electric Company---11
Taylor, Chas. B. E.---35
Therapeutic Bath Institute---19
Trowbridge Training School---16
Tulane University ---36
United States Fidelity & Guaranty Co.---11
Walgreen Company ---42
Wantads ---37
Western Flying Service---29
Western Messenger Service---41
Western Newspaper Union---16
White Flushing Valve Co.---20
Windsor Farm Dairy ---30
Woodcroft Hospital ---24
Worrell's Rest Home---25

COAL FACTS

The recent reduction in freight rates makes it possible to pass this economy to our patrons. Quality coal at the lowest possible price will always be our chief concern.

TODAY'S PRICES

Routt County Lump	$6.75
Paramount Lump	6.50
Monarch Lump	6.00
Clayton Lump	5.50
Morrison Lump	5.00
6-Inch Egg Coal	4.75

Prompt, Clean Delivery

The OWEN COAL COMPANY

801 West Bayaud Avenue Phone SPruce 4428

DENVER, COLO.

ASK US FOR FACTS AND DATA RELATIVE TO

THE CARD HYDRAULIC STOKER

FOR HOME USE

Quality Candies

Guaranteed
100 per Cent Pure

For ten years we have made chocolate candies and bon bons for the most particular patronage in Denver, including the medical profession.
In boxes of one pound and upwards at the store, seventy-five cents the pound. By mail, properly packed, $1.00 per pound.

2822-24 E. Colfax **FLORENCE CANDIES** YOrk 9519 Denver

CHRISTMAS GIFT SUGGESTIONS

Bard-Parker Knife Sets
Faichney Twin Thermometers & Case
Kompact Baumanometer
Fleicher Bakelite Stethoscope
B. D. Admiral Syringe and Case
Junior Health-O-Meter
De Luxe Health-O-Meter
Welch Allyn Otoscope and Ophthalmoscope
Physicians' Leather Bags
Gomco Thermometers and Sterilizing Cases
Tycos Sphygmomanometers
Post Cautery Outfits
Bard-Parker Scissors

GEO. BERBERT & SONS
228 Sixteenth Street OPPOSITE METROPOLITAN BUILDING Denver, Colorado

The Shirley-Savoy Hotel

Broadway at Seventeenth Street, Denver, Colo.

THE LOCATION IDEAL . . . Service with a smile . . . Four Hundred beautifully furnished and equipped rooms at reasonable rates.

Join with the other Denver physicians in our daily Doctors' Round Table Luncheons which we have instituted for your exclusive use. Your telephone calls will be given special attention.

Private dining rooms for luncheons, dinner parties or clubs.

J. Edgar Smith, *President* E. C. Bennett, *Manager*

Our operators will give you PROMPT PAGING SERVICE on your phone calls.

A Suggestion for your Christmas Gift—

A BOX OF M. D. STANDARD STATIONERY

250 Letterheads, 8½"x11"
250 Envelopes, 6½"x3⅝"
250 Statements, 5½x6½

$5.00

All neatly printed in black ink on 20-lb. Hammermill Bond. Samples on request.

THE MILES & DRYER PRINTING COMPANY
1936-38 Lawrence St. DENVER Telephone KEystone 6348

LET US DELIVER YOUR XMAS PACKAGES

Reasonable rates. We deliver packages, candy, flowers and messages to all parts of the city. Twenty-four hour service Xmas eve.

TAbor 5345-5346



WESTERN MESSENGER SERVICE
424 18th St. Denver



Denver's Largest Showing of Exclusive

LAMPS

augmented for the Holiday season by a host of new designs.

HOWARD LORTON INC.
724-746 SPEER BOULEVARD

Park at our front door.

CHRISTMAS SUGGESTIONS

STERN & CO.

"Quality Luggage"

TRUNK AND LEATHER GOODS

PHONE KEYSTONE 1419

Wardrobe Trunks
Automobile Trunks
Fitted Cases
Overnight Bags
Golf Bags
Zipper Bags

Beaded Bags
Imported Novelties
Pocket Books
Hat Boxes
Airplane Luggage
Medical Bags

312-318 FIFTEENTH STREET [OPPOSITE COURT HOUSE] DENVER, COLORADO

Conway's FLORAL SHOP

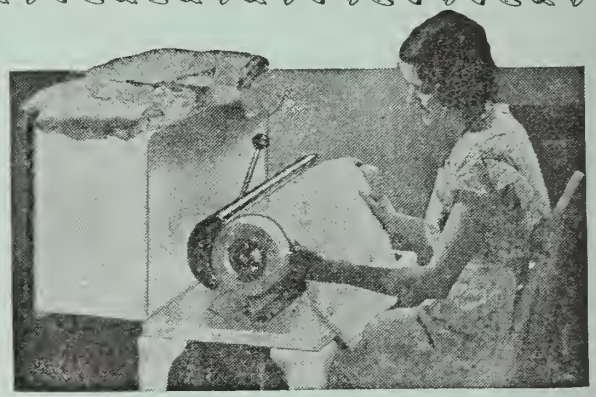
1064 SO. GAYLORD
PEarl 0622

Merry Christmas

A gift of a Blooming Plant or a nicely arranged Basket is the answer to "What shall we give her for Christmas?"

52,746 Physicians Say . . .
"KEEP OFF YOUR FEET!"

(1)—Irons everything beautifully.
(2)—Presses Suits and Trousers.
(3)—Steams Velvets and Velours.
(4)—Automatic Knee Control.
(5)—Full open ends.
(6)—Extra heat at the "busy" end.
(7)—Simple, efficient, fool-proof.
(8)—Table Top—useful every day.



MILLER-CONLON

226 SO. BROADWAY
Phone Spruce 6544. Eng. 100 M.

TO THE MEMBERS OF

THE COLORADO STATE MEDICAL SOCIETY

WE WISH FOR YOU

A Merry Christmas

and

A Happy New Year

To serve you during the coming year according to your needs and requirements with a sincerity that evidences our appreciation for your patronage will be our aim and our grateful purpose.

WALGREEN COMPANY

The Doctors' Druggists

Metropolitan Bldg. KEystone 2301 Denver

B. A. Bonner, Store Manager

Everything Is "ROSIE" Now

Now that the election is over and political differences are settled, let us think of getting back to where we were before this depression business started.

Start the Wheels Turning

Uncollected Accounts Receivable Are Frozen Assets

Thaw Them Out

How many are there that are taking advantage of the present conditions?

Put Those Frozen Dollars

in circulation by listing with us for collection all of your questionable accounts. There is a no better time than NOW. With the first of the year approaching and when everyone has the feeling—

"Let's Get Going"

Wishing You A Merry Christmas

and

A Most Prosperous New Year

YOUR COLLECTOR

The American Medical and Dental Association

700 Central Savings Bank Bldg. Phone TAbor 2331

DENVER, COLORADO

Proper Therapeutic Dosage of Antitoxin

There can be no overdose of antitoxin, yet sad cases are still occasionally reported indicating a woeful insufficiency of dosage.

The following dosage schedules are recommended:

DIPHTHERIA—Cases which are clinically diphtheria should be treated as such in spite of negative bacteriological findings.

Mild cases—10,000 to 40,000 units given intramuscularly.

Malignant, neglected, severe and laryngeal cases 20,000 to 40,000 or more units intravenously.

TETANUS — Treatment to be of value must be heroic.

Mild cases—10,000 to 20,000 units intraspinally and 10,000 to 40,000 or more units intravenously repeated at twelve to twenty-four hour intervals as indicated. Severe cases, or cases of short incubation period, 20,000 units intraspinally, 20,000 to 40,000 or more units intravenously repeated at twelve to twenty-four hour intervals as indicated. The use of 500,000 units and more, to effect a recovery in cases which apparently otherwise would have been fatal, are reported in the literature.

CUTTER STANDARD

The CUTTER Laboratory
Established 1897
BERKELEY, CALIFORNIA

J. C. BEEMAN, D.S.C
Chiropodist

F. BEEMAN & SONS
Shoe Fitting Specialists

FOOT AILMENTS SCIENTIFICALLY TREATED

CORRECTIVE FOOTFITTERS

44 SO. BROADWAY DENVER, COLORADO

WHY SUFFER FOOT DISCOMFORT?

Try a Pair of Corrective Shoes

Phone SPruce 5276

Examination Free of Charge *Eves. by Appointments*

The New York Academy of Medicine

THIS BOOK MUST NOT BE RETAINED FOR LONGER THAN ONE WEEK AFTER THE LAST DATE ON THE SLIP UNLESS PERMISSION FOR ITS RENEWAL BE OBTAINED FROM THE LIBRARY.